

**KENT S. ROBINSON (OSB 09625)**

Acting United States Attorney  
District of Oregon

**STEPHEN J. ODELL (OSB No. 90353)**

Assistant United States Attorney  
1000 S.W. Third Avenue, Suite 600  
Portland, OR 97204-2902  
(503) 727-1024 (tel) / (503) 727-1117 (fax)

**IGNACIA S. MORENO**

Assistant Attorney General

**MARK A. NITCZYNSKI (CSB 20687)**

mark.nitczynski@usdoj.gov  
U.S. Department of Justice/ENRD  
1961 Stout Street - 8<sup>th</sup> Floor  
Denver, CO 80294  
(303) 844-1498 (tel)/(303) 844-1350 (fax)

**MEREDITH L. FLAX (DCB 468016)**

meredith.flax@usdoj.gov  
U.S. Department of Justice  
Environment & Natural Resources Division  
Wildlife & Marine Resources Section  
Ben Franklin Station, P.O. Box 7369  
Washington, D.C. 20044-7369  
(202) 305-0404 (tel) / (202) 305-0275 (fax)

Attorneys for Federal Defendants

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

NORTHWEST ENVIRONMENTAL  
ADVOCATES, a non-profit corporation,

Civ. No. 05-1876-HA

Plaintiff,

v.

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY, NATIONAL  
MARINE FISHERIES SERVICE, and  
UNITED STATES FISH AND WILDLIFE  
SERVICE,

Defendants.

UNITED STATES' NOTICE OF FILING  
FWS'S AMENDED ADMINISTRATIVE  
RECORD AND INDEX PURSUANT TO  
OCTOBER 21, 2009 ORDER

Pursuant to the Court's October 21, 2009 Order (Docket No. 193), notice is provided to the Court and the parties that the United States is hereby filing the Certification of Amended Administrative Record for U.S. Fish and Wildlife Service ("FWS"), along with the index for the record. The certification and index are attached hereto as Attachment A.

Pursuant to Local Civil Rule 100.4(f), FWS's amended administrative record will not be filed using the Court's Electronic Case Filing system. Accordingly, notice also is provided that, on November 20, 2009, the United States is sending for filing with this Court a disc that contains FWS's amended administrative record. The United States also is sending a courtesy copy of the disc for Judge Haggerty's chambers. Copies of the disc also are being sent today to counsel identified on the Certificate of Service.<sup>2/</sup>

Respectfully submitted,

IGNACIA S. MORENO  
Assistant Attorney General  
Environment & Natural Resources Division

/s/ Meredith L. Flax  
MEREDITH L. FLAX (DCB 468016)  
United States Department of Justice  
P.O. Box 7369  
Washington, DC 20044-7369  
(202) 305-0404  
E-mail: meredith.flax@usdoj.gov

MARK A. NITCZYNSKI (CSB 20687)  
U.S. Department of Justice/ENRD  
1961 Stout Street - 8<sup>th</sup> Floor  
Denver, CO 80294  
(303) 844-1498  
E-mail: mark.nitczynski@usdoj.gov

Attorneys for United States of America

Dated: November 20, 2009

---

<sup>2/</sup> For the convenience of the Court and the parties, the discs being sent today contain electronic copies of all of the documents contained in FWS's administrative record, including the documents that were added to the record pursuant to the Court's October 21, 2009 Order (Docket No. 193) and the documents that were contained in FWS's previous record filings.

**CERTIFICATE OF SERVICE**

I hereby certify that on November 20, 2009, I caused a true copy of the foregoing  
UNITED STATES' NOTICE OF FILING FWS'S AMENDED ADMINISTRATIVE RECORD  
AND INDEX PURSUANT TO OCTOBER 21, 2009 ORDER (with attachment) to be served on  
each of the following counsel in the manner indicated below:

Daniel P. Mensher  
PACIFIC ENVIRONMENTAL  
ADVOCACY CENTER  
10015 S.W. Terwilliger Blvd.  
Portland, OR 97219  
dmensher@lclark.edu

☐ Via Hand Delivery  
☐ Via E-mail  
☐ Via First-Class mail, postage pre-paid  
☐ Via Overnight Mail  
☒ Court notice of electronic filing via  
CM/ECF

Allison LaPlante  
PACIFIC ENVIRONMENTAL  
ADVOCACY CENTER  
10015 S.W. Terwilliger Blvd.  
Portland, OR 97219  
laplante@lclark.edu

☐ Via Hand Delivery  
☐ Via E-mail  
☐ Via First-Class mail, postage pre-paid  
☐ Via Overnight Mail  
☒ Court notice of electronic filing via  
CM/ECF

Karen Moynahan  
Oregon Department of Justice  
1162 Court St., NE  
Salem, OR 97301-4096  
karen.moynahan@doj.state.or.us

☐ Via Hand Delivery  
☐ Via E-mail  
☐ Via First-Class mail, postage pre-paid  
☐ Via Overnight Mail  
☒ Court notice of electronic filing via  
CM/ECF

Laura Maffei, R.G.  
Attorney at Law  
Schwabe Williamson & Wyatt  
1211 SW 5<sup>th</sup> Ave., Suites 1600-1900  
Portland, OR 97204  
Lmaffei@SCHWABE.com

☐ Via Hand Delivery  
☐ Via E-mail  
☐ Via First-Class mail, postage pre-paid  
☐ Via Overnight Mail  
☒ Court notice of electronic filing via  
CM/ECF

/s/ Meredith L. Flax  
MEREDITH L. FLAX

# ATTACHMENT A

KARIN J. IMMERGUT (OSB No. 96314)  
United States Attorney  
**STEPHEN J. ODELL** (OSB No. 90353)  
Assistant United States Attorney  
District of Oregon  
1000 S.W. Third Avenue  
Portland, OR 97204-2902  
(503) 727-1100 (tel) / (503) 727-1117 (fax)

JOHN C. CRUDEN  
Acting Assistant Attorney General  
Environment & Natural Resources Division

**MARK A. NITCZYNSKI** (CSB 20687)  
mark.nitczynski@usdoj.gov  
U.S. Department of Justice/ENRD  
1961 Stout Street - 8<sup>th</sup> Floor  
Denver, CO 80294  
(303) 844-1498 (tel)/ (303) 844-1350 (fax)  
**MEREDITH L. FLAX** (DCB 468016)  
meredith.flax@usdoj.gov  
U.S. Department of Justice  
Environment & Natural Resources Division  
Wildlife & Marine Resources Section  
Ben Franklin Station, P.O. Box 7369  
Washington, D.C. 20044-7369  
(202) 305-0404 (tel) / (202) 305-0275 (fax)

Attorneys for United States of America

UNITED STATES DISTRICT COURT  
DISTRICT OF OREGON

<p>NORTHWEST ENVIRONMENTAL ADVOCATES, a non-profit corporation,</p> <p style="text-align: center;">Plaintiff,</p> <p style="text-align: center;">v.</p> <p>UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, NATIONAL MARINE FISHERIES SERVICE, and UNITED STATES FISH AND WILDLIFE SERVICE,</p> <p style="text-align: center;">Defendants.</p>	<p>Civ. No. 05-1876-HA</p> <p>CERTIFICATION OF SECOND AMENDED ADMINISTRATIVE RECORD FOR THE U.S. FISH AND WILDLIFE SERVICE'S BIOLOGICAL OPINION</p>
--	---

I, Elizabeth Materna, declare as follows:

I am employed as a fish and wildlife biologist for the U.S. Fish and Wildlife Service (FWS) in  
the Oregon Fish and Wildlife Office, located in Portland, Oregon.

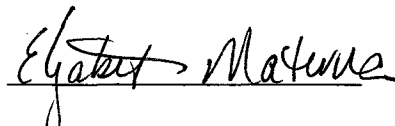
My duties include assembling and maintaining the administrative record for the FWS's  
biological opinion on the Environmental Protection Agency's proposed approval of  
revised Oregon water quality standards for temperature, intergravel dissolved oxygen, and  
antidegradation, dated February 24, 2004.

In compliance with the Court's order dated October 21, 2009, the FWS has added to the  
administrative record four documents that it earlier withheld under a claim of privilege:  
Numbers 61, 71, 73 and 85. The FWS has amended its administrative record  
accordingly, and the record filed herewith includes the documents listed in the original  
index filed with the Court in June, 2006, the supplemental documents filed in March,  
2008, the 29 documents added in April, 2009, and the four documents listed above.

I certify that the documents reproduced and indexed on the compact disk filed herewith comprise the complete administrative record for this biological opinion, as determined to the best of my ability.

I make this declaration pursuant to 28 U.S.C. ' 1746. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 9, 2009, at Portland, Oregon.

  
ELIZABETH MATERNA

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<b>Original Administrative Record dated June 5, 2006</b>			
<b>Biological Opinion and Supporting Documents</b>			
<a href="#">1</a>	00001-00101	2/25/2004	Letter from Oregon Fish and Wildlife Office (OFWO) to Randall F. Smith, US Environmental Protection Agency (EPA) re: Biological opinion; EPA's proposed approval of revised Oregon water quality standards for temperature, intergravel dissolved oxygen and antidegradation
<a href="#">2</a>	00102-00195	2/24/2004	Fish and Wildlife Service (FWS) Biological Opinion (BO) for EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature, Intergravel Dissolved Oxygen, and Antidegradation
<a href="#">3</a>	00196-00199	2/4/2004	Letter faxed from Michael T. Llewellyn, Oregon Department of Environmental Quality (ODEQ) to Randy Smith, EPA re: ODEQ Response to EPA Questions re the OR water quality temperature standards
<a href="#">4</a>	00200-00219	12/19/2003	Oregon Department of Fish and Wildlife (ODFW) - Non-Anadromous Species Timing Unit tables
<a href="#">5</a>	00220-00311	11/10/2003	ODEQ Water Pollution Division 41 Water Quality Standards: Beneficial uses, policies, and criteria for Oregon
<a href="#">6</a>	00312-00317	Nov-03	ODEQ Beneficial Use Designations, Fish Uses: Table 190B, 250B, 121B, 101B, and 140B
<a href="#">7</a>	00318-00319	10/14/2003	Meeting Notes for October 14, 2003 Beneficial Use Group
<a href="#">8</a>	00320-00323	10/2/2003	Letter from FWS, OFWO to Emily Smith, ODEQ re: Comments on proposed revisions to ODEQ Division 41 Water Quality Standards
<a href="#">9</a>	00324-00325	5/28/2003	Meeting Notes written by Elizabeth Materna, FWS, for Where and When Team
<a href="#">10</a>	00326-00330	5/27/2003	ODFW Life stage Timing Criteria, Definitions, and Questions
<a href="#">11</a>	00331-00335	5/9/2003	Draft Temperature Standard Options
<a href="#">12</a>	00336-00340	4/21/2003	Letter from FWS to John Lani, EPA re: Comments on the final version of EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards
<a href="#">13</a>	00341-00342	11/29/2002	Federal Register / Vol. 67, No. 230 / Friday, November 29, 2002 / Proposed Rules Bull Trout 71265
<a href="#">14</a>	00343-00357	11/29/2002	Federal Register Department of Interior Fish and Wildlife Service 50 CFR Part 17; Proposed Designation of Critical Habitat for the Klamath River and Columbia River District Population Segments of Bull Trout and Notice of Availability of the Draft Recovery Plan
<a href="#">15</a>	00358-00371	9/19/2002	Myrick, C.A. 2002. Bull Trout Temperature Thresholds Peer Review Summary. Prepared for US Fish and Wildlife Service, Lacey, Washington
<a href="#">16</a>	00372-00432	7/1/1999	Letter/BO from FWS OFWO to Randall F. Smith, EPA re: Oregon water quality standards ESA consultation
<a href="#">17</a>	00433-00434	No Date	FWS Bull Trout Issue - General Background, Basin Specific Information
<a href="#">18</a>	00435-00438	No Date	ODEQ Table 190B Beneficial use designations, Fish Uses, Malheur Lake Basin, Oregon: FWS Lahontan Cutthroat Trout distribution maps
<b>E-Mail Messages</b>			
<a href="#">19</a>	00439-00439	2/23/2004	Email from Rollie White, FWS, to Elizabeth Materna, FWS, re: Amount of take in the biological opinion, with one attachment
<a href="#">20</a>	00440-00441	2/23/2004	Attachment: Edits to the BO on the Effect of Take
<a href="#">21</a>	00442-00442	2/20/2004	Email from Jesse Delia, FWS, to Elizabeth Materna, FWS, re: Bull trout consulted-on effects, with one attachment
<a href="#">22</a>	00443-00469	2/20/2004	Attachment: Consulted-on effects that have been analyzed through section 7 consultation as reported in a biological opinion
<a href="#">23</a>	00470-00470	2/19/2004	Email from Anne Walker, FWS, to Elizabeth Materna, FWS, re: 2003 bull trout survey results above and below the Clear branch dam, with one attachment

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">24</a>	00471-00581	2/19/2004	Attachment: Mt Hood recovery unit chapter of the bull trout recovery plan
<a href="#">25</a>	00582-00582	2/19/2004	Email from Cat Brown, FWS, to Elizabeth Materna, FWS, re: Oregon chub consultation history, with one attachment
<a href="#">26</a>	00583-00584	2/19/2004	Attachment: Previous biological opinions for Oregon Chub
<a href="#">27</a>	00585-00585	2/17/2004	Email from Chris Allen, FWS, to Elizabeth Materna, FWS, re: Upper McKenzie Redd survey for fall 2003, with one attachment
<a href="#">28</a>	00586-00587	2/17/2004	Attachment: Upper McKenzie Redd count Bull trout and Chinook, October 7, 2003
<a href="#">29</a>	00588-00588	2/17/2004	Email from Chris Allen, FWS, to Elizabeth Materna, FWS, re: Annual report from ODFW, spawning survey data for bull trout Carmen Dam, with one attachment
<a href="#">30</a>	00589-00616	2/17/2004	Attachment: Bull trout population monitoring in the McKenzie and Middle Fork Willamette Rivers, Annual Progress Report 2002
<a href="#">31</a>	00617-00618	2/17/2004	Email from Chris Allen, FWS, to Elizabeth Materna, FWS, re: McKenzie bull trout Redd count 2003, with one attachment
<a href="#">32</a>	00619-00619	2/17/2004	Attachment: Redd table from year 1989 to 2003
<a href="#">33</a>	00620-00620	2/10/2004	Email from Kellie Kubena, EPA, to Marylou Soscia, EPA re: Bull trout spawning below dams
<a href="#">34</a>	00621-00626	1/29/2004	Email from John Stephenson, FWS, to Bianca Streif, FWS, re: Bull trout fry emergence in the Umatilla and Walla Walla basins
<a href="#">35</a>	00627-00630	1/29/2004	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: ODEQ temperature letter
<a href="#">36</a>	00631-00632	1/28/2004	Email from Bianca Streif, FWS to Elizabeth Materna, FWS, re: Fry emergence in John Day, Malheur and Willamette
<a href="#">37</a>	00633-00634	1/27/2004	Email from Bianca Streif, FWS to Elizabeth Materna, FWS, re: Fry emergence in Imnaha
<a href="#">38</a>	00635-00636	1/27/2004	Email from Bianca Streif, FWS to Elizabeth Materna, FWS, re: Fry emergence in the Deschutes
<a href="#">39</a>	00637-00638	1/27/2004	Email from Peter Lickwar, FWS, to Elizabeth Materna, FWS, re: Bull trout spawning, with one attachment
<a href="#">40</a>	00639-00797	1/27/2004	Attachment: PGE's Draft Pelton Round Butte hydroelectric project supplemental biological evaluation, January 16, 2004
<a href="#">41</a>	00798-00798	1/27/2004	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: Table of the spawning through emergence times for bull trout by basin and sub-basin, with one attachment
<a href="#">42</a>	00799-00800	1/27/2004	Attachment: Bull trout life stage timing
<a href="#">43</a>	00801-00801	1/14/2004	Email from Bianca Streif, FWS to Elizabeth Materna, FWS, re: Bull trout spawning
<a href="#">44</a>	00802-00803	1/6/2004	Email from Doug Young, FWS, to Elizabeth Materna, FWS, re: Spawning dates
<a href="#">45</a>	00804-00804	12/18/2003	Email from Carmen Thomas, FWS, Elizabeth Materna, FWS, re: Bull trout in Hells Canyon or Oxbow Reservoir
<a href="#">46</a>	00805-00806	12/17/2003	Email from Dru Keenan, EPA, to Elizabeth Materna, FWS re: Draft conservation measures please review with two attachments
<a href="#">47</a>	00807-00810	12/17/2003	Email from Dru Keenan, EPA to Elizabeth Materna, FWS re: Oregon clarification letter, attachment duplicate of first 12/17/03 email from EPA
<a href="#">48</a>	00811-00812	12/16/2003	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: Error in rule
<a href="#">49</a>	00813-00813	12/15/2003	Email from Debra Sturdevant, ODEQ, to Dru Keenan, EPA, Lahontan cutthroat trout habitat information
<a href="#">50</a>	00814-00814	12/15/2003	Email from Chris Allen, FWS, to Elizabeth Materna, FWS, re: Modoc suckers only found in the Goose Lake Basin

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">51</a>	00815-00815	12/11/2003	Email from Chris Allen, FWS, to Elizabeth Materna, FWS, re: Bull trout status for the Willamette BO, with one attachment
<a href="#">52</a>	00816-00855	12/11/2003	Attachment: Willamette BO: bull trout status of the species and critical habitat
<a href="#">53</a>	00856-00857	12/10/2003	Email from Rollie White, FWS, to Elizabeth Materna, FWS, re: conservation measures
<a href="#">54</a>	00858-00859	11/20/2003	Email from Dru Keenan, EPA, to Elizabeth Materna, FWS re: Options for bull trout spawning below dams
<a href="#">55</a>	00860-00860	11/20/2003	Attachment: Options for bull trout spawning below dams
<a href="#">56</a>	00861-00861	11/20/2003	Email from Anne Walker, FWS, to Elizabeth Materna, FWS, re: Phone record for temperatures above and below the Laurance lake, with one attachment
<a href="#">57</a>	00862-00862	11/20/2003	Attachment: Phone record with Mt. Hood National Forest, re: bull trout spawn below the dam (Laurance Lake)
<a href="#">58</a>	00863-00863	11/20/2003	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: Powerpoint maps for Lahontan, with one attachment
<a href="#">59</a>	00864-00867	11/20/2003	Attachment: Lahontan cutthroat trout, brown trout, Alvord and Borax chub maps
<a href="#">60</a>	00868-00868	11/18/2003	Email from Anne Walker, FWS, to Elizabeth Materna, FWS, re: Mt Hood bull trout status in the revised draft recovery plan, with one attachment
<a href="#">61</a>	00869-00875	11/18/2003	Attachment: Mt Hood bull trout status in the revised draft recovery plan
<a href="#">62</a>	00876-00876	11/7/2003	Email from Debra Sturdevant, ODEQ, to Robert Anderson, NMFS, re: Revised draft of Findings of ODEQ's Technical Advisory Committee on Water Quality Criteria for Temperature, with one attachment
<a href="#">63</a>	00877-00895	11/7/2003	Attachment: A Summary of the Discussion and Findings of ODEQ's Technical Advisory Committee on Water Quality Criteria for Temperature
<a href="#">64</a>	00896-00898	11/5/2003	Email from Anne Walker, FWS, to Elizabeth Materna, FWS, re: Holy Heat Sump, concerns with winter temperatures below dams
<a href="#">65</a>	00899-00904	11/4/2003	Email from Anne Walker, FWS to Elizabeth Materna, FWS re: Holy Heat Sump; temperature below Clear Branch Dam during the winter
<a href="#">66</a>	00905-00906	11/3/2003	Email from Elizabeth Materna, FWS to Dru Keenan, EPA re: Notes from 10/28 meeting - key unresolved issues with one attachment
<a href="#">67</a>	00907-00907	11/3/2003	Attachment: Draft meeting notes from where and when meeting October 28, 2003
<a href="#">68</a>	00908-00908	11/3/2003	Email from Debra Sturdevant, ODEQ to Jeff Lockwood re: Notes from 10/28 meeting; key unresolved issues
<a href="#">69</a>	00909-00910	10/27/2003	Email from Jeff Lockwood, NMFS to Debra Sturdevant, OSU re: Final notes from 10/14 where and when meeting, with one attachment
<a href="#">70</a>	00911-00912	10/27/2003	Attachment: Meeting notes for October 14, 2003, beneficial use group
<a href="#">71</a>	00913-00915	10/22/2003	Email from Tracy Harrison, ODEQ to Debra Sturdevant, ODEQ, re: Date ranges for the migration (BTHD-2) and potential migration (BTHD-4) in the Klamath, Powder and Malheur river basins, with two attachments
<a href="#">72</a>	00916-00916	10/22/2003	Attachment 1: Malheur Bull trout map
<a href="#">73</a>	00917-00917	10/22/2003	Attachment 2: Klamath Bull trout map
<a href="#">74</a>	00918-00918	10/16/2003	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: Data from streams with bull trout, with three attachments
<a href="#">75</a>	00919-00919	10/16/2003	Attachment 1: Summary temperature data for sections of Metolius and Minam Rivers; low risk bull trout streams
<a href="#">76</a>	00920-00920	10/16/2003	Attachment 2: Summary temperature data for sections of Metolius and Minam Rivers; low risk bull trout streams
<a href="#">77</a>	00921-00921	10/16/2003	Attachment 3: Summary temperature data for the McKenzie river

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">78</a>	00922-00922	10/15/2003	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: Rock creek data, with one attachment
<a href="#">79</a>	00923-00924	10/15/2003	Attachment: Summary temperature data for Rock Creek in the Powder Basin
<a href="#">80</a>	00925-00928	10/2/2003	Email from Shelley Spalding, FWS Lacey, Washington, to Elizabeth Materna, FWS, re: Status of the revised Oregon temperature standards
<a href="#">81</a>	00929-00930	9/25/2003	Email from Elizabeth Materna, FWS, to Adrienne Allen, EPA, re: Bull trout spawning criteria issue from our draft bull trout recovery plan, October 2002
<a href="#">82</a>	00931-00932	9/18/2003	Email from Alan Mauer, FWS, to Elizabeth Materna, FWS, re: Bull trout question related to Oregon temperature criteria
<a href="#">83</a>	00933-00933	9/18/2003	Email from John Bowerman, FWS, to Elizabeth Materna, FWS, re: Bull trout question related to Oregon temperature criteria
<a href="#">84</a>	00934-00934	9/17/2003	Email from Carmen Thomas, FWS, Elizabeth Materna, FWS, re: Bull trout question related to Oregon temperature criteria
<a href="#">85</a>	00935-00935	9/10/2003	Email from Elizabeth Materna, FWS to Dru Keenan, EPA re: Bull trout spawning times in the Pine River Basin
<a href="#">86</a>	00936-00938	8/12/2003	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: Powder and Malheur summer max map changes
<a href="#">87</a>	00939-00939	8/11/2003	Email from Elizabeth Materna, FWS, to Tracy Harrison, ODEQ, re: Powder and Malheur summer max map, with one attachment
<a href="#">88</a>	00940-00940	8/11/2003	Attachment: Critical period fish use designations Powder and Malheur basins, Oregon; draft 8/8/03 map
<a href="#">89</a>	00941-00941	8/8/2003	Email from Tracy Harrison, ODEQ to Chris Mebane, NMFS, re: Klamath summer max map, with one attachment
<a href="#">90</a>	00942-00942	8/8/2003	Attachment: Critical period, fish use designations Klamath basin, Oregon, Draft 8/8/03
<a href="#">91</a>	00943-00944	8/7/2003	Email from Audrey Hatch, OSU to Elizabeth Materna, FWS, re: Pine creek basin, no timing information
<a href="#">92</a>	00945-00945	8/6/2003	Email from Audrey Hatch, OSU to Elizabeth Materna, FWS, re: Pine Creek Basin, no timing information, with one attachment
<a href="#">93</a>	00946-00946	8/6/2003	Attachment: ODFW Timing Table, Pine Creek non-anadromous species
<a href="#">94</a>	00947-00951	8/6/2003	Email from Dru Keenan, EPA to Elizabeth Materna, FWS re: Timing of the bull trout spawning below reservoirs
<a href="#">95</a>	00952-00952	8/6/2003	Email from John Palmer, EPA to Dru Keenan, EPA re: Final draft of where/when decision rules, with one attachment
<a href="#">96</a>	00953-00954	8/6/2003	Attachment: Final draft of decision rules to designate pacific salmon and bull trout beneficial uses in Oregon
<a href="#">97</a>	00955-00955	8/5/2003	Email from Alan Mauer, FWS, to Elizabeth Materna, FWS, re: Lahontan cutthroat trout temperatures
<a href="#">98</a>	00956-00956	8/5/2003	Email from Alan Mauer, FWS, to Elizabeth Materna, FWS, re: Lahontan cutthroat trout contacts
<a href="#">99</a>	00957-00958	8/4/2003	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: Classification of the non-anadromous endangered species
<a href="#">100</a>	00959-00959	8/1/2003	Email from Jeff Lockwood, NMFS to Dru Keenan, EPA re: Meeting notes from conference call on 07/30/03, with one attachment
<a href="#">101</a>	00960-00961	8/1/2003	Attachment: Notes from where and when conference call 07/30/03
<a href="#">102</a>	00962-00964	7/31/2003	Email from Debra Sturdevant, OSU to Chris Mebane, NMFS re: Prime, sub-prime or cooler habitat
<a href="#">103</a>	00965-00965	7/30/2003	Email from Dru Keenan, EPA to Elizabeth Materna, FWS re: Spawning rules II, with one attachment
<a href="#">104</a>	00966-00967	7/30/2003	Attachment: Draft version 2 spawning rules

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">105</a>	00968-00969	7/29/2003	Email from Chris Mebane, NMFS to Tracy Harrison, ODEQ re: Please respond revised decision rules, with one attachment
<a href="#">106</a>	00970-00971	7/29/2003	Attachment: Decision rule for mapping salmonid uses 7/28/03 revision
<a href="#">107</a>	00972-00972	7/28/2003	Email from Jennifer Weaver, ODEQ, to Bill Blosser, re: Last call on Division 41 revisions, with one attachment
<a href="#">108</a>	00973-01060	7/28/2003	Attachment: Draft #5 (July 28, 2003) ODEQ water pollution Division 41 water quality standards: beneficial uses, policies, and criteria for Oregon
<a href="#">109</a>	01061-01061	7/25/2003	Email from Cedric Cooney, OSU, to Bill Bogue, EPA, re: Response to questions from the July 15-16 where/when meeting, with one attachment
<a href="#">110</a>	01062-01066	7/25/2003	Attachment: Questions with answers from the EPA When/Where meeting on July 15th and 16th
<a href="#">111</a>	01067-01068	7/25/2003	Email from Debra Sturdevant, ODEQ to William Bogue, EPA, re: Bull trout proposal, ODEQ, ODFW, and FWS data overlay, with one attachment
<a href="#">112</a>	01069-01118	7/25/2003	Attachment: Bull Trout Habitat Designation Technical Work Group Recommendations, Final July 2003
<a href="#">113</a>	01119-01121	7/25/2003	Email from Debra Sturdevant, ODEQ to John Palmer, EPA re: New spawning proposal
<a href="#">114</a>	01122-01122	7/24/2003	Email from Emily Smith, ODEQ, to William Bogue, EPA, re: Bull trout issues
<a href="#">115</a>	01123-01124	7/23/2003	Email from John Palmer, EPA to Chris Mebane, NMFS, re: New spawning proposal
<a href="#">116</a>	01125-01126	7/22/2003	Email from Emily Smith, ODEQ, to Elizabeth Materna, FWS, re: Bull trout critical habitat map changes
<a href="#">117</a>	01127-01129	7/22/2003	Email from Debra Sturdevant, ODEQ to William Bogue, EPA re: Bull trout spawning mapping and assigning values to diversions with one attachment
<a href="#">118</a>	01130-01130	7/22/2003	Attachment: Preliminary John Day basin summer maximum stream temperature criteria for protection of salmon and trout core rearing and migration and bull trout spawning map
<a href="#">119</a>	01131-01131	7/15/2003	Email from John Bowerman, FWS, to Elizabeth Materna, FWS, re: Minor changes to bull trout critical habitat in the Klamath Basin
<a href="#">120</a>	01132-01132	7/14/2003	Email from Carmen Thomas, FWS to Elizabeth Materna, FWS re: Revisions to the proposed critical habitat map for the recovery unit
<a href="#">121</a>	01133-01133	7/11/2003	Email from Dru Keenan, EPA to Elizabeth Materna, FWS re: Decision rules justifications assumptions, with one attachment
<a href="#">122</a>	01134-01135	7/11/2003	Attachment: Decision rule assumptions to date
<a href="#">123</a>	01136-01136	7/10/2003	Email from Alan Mauer, FWS to Elizabeth Materna, FWS re: Revisions to the proposed critical habitat map for the recovery unit
<a href="#">124</a>	01137-01138	7/7/2003	Email from Debra Sturdevant, ODEQ, to Elizabeth Materna, FWS, re: Temperature standard issues to resolve
<a href="#">125</a>	01139-01141	7/7/2003	Attachment: Temperature standard issues
<a href="#">126</a>	01142-01170	7/7/2003	Attachment: July 7 draft temperature rule language
<a href="#">127</a>	01171-01174	7/1/2003	Email from Elizabeth Materna, FWS, to Carmen Thomas, FWS, re: Reservoirs in the Pine Creek Basin
<a href="#">128</a>	01175-01178	7/1/2003	Email from Carmen Thomas, FWS to Elizabeth Materna, FWS re: Mehlhorn and Clear creek reservoirs
<a href="#">129</a>	01179-01180	6/26/2003	Email from Debra Sturdevant, ODEQ, to John Palmer, EPA, re: Willamette basin 18/16 rule
<a href="#">130</a>	01181-01182	6/23/2003	Email from Paul Bridges, FWS, to Elizabeth Materna, FWS, re: bull trout spawning below reservoirs
<a href="#">131</a>	01183-01184	6/19/2003	Email from Anne Walker, FWS, to Elizabeth Materna, FWS, re: bull trout spawning below reservoirs

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">132</a>	01185-01186	6/18/2003	Email from Chris Allen, FWS, to Elizabeth Materna, FWS, re: bull trout spawning below reservoirs
<b>Data Considered but not Cited</b>			
<a href="#">133</a>	01187-01187	11/5/2003	ODEQ Draft Grande Ronde Spawning map, 11/05/2003 draft
<a href="#">134</a>	01188-01188	11/5/2003	ODEQ Draft Grande Ronde Summer Max map, 11/05/2003 draft
<a href="#">135</a>	01189-01189	11/5/2003	ODEQ Draft Klamath Summer Max map, 11/05/2003 draft
<a href="#">136</a>	01190-01190	11/5/2003	ODEQ Draft Malheur Summer Max map, 11/05/2003 draft
<a href="#">137</a>	01191-01196	10/1/2003	Chandler, J.A., M.A. Fedora, and T.R. Walters. 2001. Pre- and Post-Spawn Movements and Spawning Observations of Resident Bull Trout in the Pine Creek Watershed, Eastern Oregon. In Brewin, M.K., A.J. Paul, and M. Mond+E327a, eds. Bull Trout II Conference Proceedings 167-172.
<a href="#">138</a>	01197-01214	7/7/2003	FWS draft bull trout maps with ODEQ overlay and written comments.
<a href="#">139</a>	01215-01216	5/19/2003	Data Inventory of Salmonid Life Stage Distribution and Timing
<a href="#">140</a>	01217-01312	Jan-03	ODEQ, Final Temperature Study in the John Day Basin for 2001
<a href="#">141</a>	01313-01313	11/29/2002	Federal Register Notice, Vol. 67. No. 230, Proposed Rule bull trout critical habitat Unit 5-Hood River Basin map with written comments
<a href="#">142</a>	01314-01380	1/31/2001	Summary Report: State conservation measure 7 year 2000 field study of anadromous salmonid spawning season water temperature regimes in the Imnaha river basin: series of summary temperature graphs for Wenaha and Imnaha Rivers and Catherine Creek
<a href="#">143</a>	01381-01389	6/22/2001	ODEQ Temperature Data - McKenzie River at Dearborn Is Rd bridge above South Fork McKenzie RM 60
<a href="#">144</a>	01390-01391	6/22/2001	ODEQ Temperature Data - Horse Creek at bridge on Horse Cr Rd
<a href="#">145</a>	01392-01394	6/2/2001	ODEQ Temperature Data - McKenzie River at Ranger Station
<a href="#">146</a>	01395-01397	5/30/2001	ODEQ Temperature Data - McKenzie River above Trail bridge Reservoir
<a href="#">147</a>	01398-01400	5/19/2001	ODEQ Temperature Data - RM 29.02 Metolius River u/s of Bridge 99
<a href="#">148</a>	01401-01403	5/19/2001	ODEQ Temperature Data - RM38.27 Metolius River d/s of Tract C Bridge
<a href="#">149</a>	01404-01406	5/9/2001	ODEQ Temperature Data - Metolius River North of Camp Sherman Bridge 99
<a href="#">150</a>	01407-01410	5/9/2001	ODEQ Temperature Data - Metolius River u/s of mouth of Canyon Creek
<a href="#">151</a>	01411-01413	5/9/2001	ODEQ Temperature Data - RM 38.34 Metolius River at Track C Bridge
<a href="#">152</a>	01414-01416	5/9/2001	ODEQ Temperature Data - RM 31.47 Metolius River at old water intake pipe near Wizard Falls Fish Hatchery
<a href="#">153</a>	01417-01423	12/20/2000	ODEQ Temperature Data - South Fork McKenzie River Near Rainbow, OR
<a href="#">154</a>	01424-01425	Sep-98	ODEQ Temperature Data - Powder River Basin, Rock Creek u/s of Camp Lee
<a href="#">155</a>	01426-01427	7/9/1998	ODEQ Temperature Data - SF McKenzie River at Natl. Forest Rte. 19 Bridge
<a href="#">156</a>	01428-01429	1998	ODEQ Temperature Data - Wenaha Subbasin- 1998
<a href="#">157</a>	01430-01432	8/1/1996	ODEQ Temperature Data - Blue River at Blue River Drive
<a href="#">158</a>	01433-01435	8/1/1996	ODEQ Temperature Data - McKenzie River at Hwy 126 btwn Koosah Falls and Clear Lake
<a href="#">159</a>	01436-01438	No Date	ODEQ Temperature Data - RM 11.94 Metolius River u/s of Gauging Station
<a href="#">160</a>	01439-01441	No Date	ODEQ Temperature Data - RM 35.45 Metolius River at Gorge Campground
<a href="#">161</a>	01442-01444	No Date	ODEQ Temperature Data - RM 39.20 Metolius River d/s of headwater springs
<a href="#">162</a>	01445-01445	No Date	Pacific Northwest Reservoir System
<a href="#">163</a>	01446-01446	No Date	Map of Upper Klamath Basin
<a href="#">164</a>	01447-01447	No Date	Changes needed to Draft Hood Recovery Unit and Critical Habitat map for finalization.

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">165</a>	01448-01450	No Date	Information for Hood River Basin bull trout map
<a href="#">166</a>	01451-01456	No Date	Comments of bull trout proposed critical habitat Hood River Basin
<a href="#">167</a>	01457-01459	No Date	FWS Tables - List of current local bull trout populations in the North, Middle, and Upper John Day River sub watershed
<a href="#">168</a>	01460-01461	No Date	FWS Table comparing 9 °C date with documented spawn times
<b>Literature Cited</b>			
<a href="#">169</a>	01462-01477	7/1/1996	Batt, P.E., 1996. State of Idaho Bull Trout Conservation Plan. Office of the Governor, Boise, ID.
<a href="#">170</a>	01478-01509	1996	Baxter, J.S. and J.D. McPhail. 1996. Bull trout spawning and rearing habitat requirements: summary of the literature. Fisheries technical circular no. 98. Fisheries Branch, British Columbia Ministry of Environment, Lands and Parks, Vancouver.
<a href="#">171</a>	01510-01516	1999	Baxter, J.S. and J.D. McPhail. 1999. The influence of redd site selection, groundwater upwelling, and over-winter incubation temperature on survival of bull trout ( <i>Salvelinus confluentus</i> ) from egg to alevin. Canadian Journal of Zoology 77:1233-1239.
<a href="#">172</a>	01517-01618	12/5/1990	Berman, C.H. 1990. Effect of elevated holding temperatures on adult spring chinook salmon reproductive success. MS Thesis. University of Washington. Seattle.
<a href="#">173</a>	01619-01669	Sep-77	Bjornn, T.C. 1977. Transport of Granitic Sediment in Streams and Its Effects on Insects and Fish. Research Technical Completion Report. Project B-036-IDA.
<a href="#">174</a>	01670-01675	1987	Boag, T.D. 1987. Food habits of bull char, <i>Salvelinus confluentus</i> , and rainbow trout, <i>Salmo gairdneri</i> , coexisting in a foothills stream in northern Alberta. Canadian Field- Naturalist 101(1): 56-62.
<a href="#">175</a>	01676-01679	1992	Bond, C.E. 1992. Notes on the nomenclature and distribution of the bull trout and the effects of human activity on the species. Pages 1-4 in Howell, P.J. and D.V. Buchanan, eds. Proceedings of the Gearhart Mountain bull trout workshop. Oregon Chapter of the American Fisheries Society, Corvallis, OR.
<a href="#">176</a>	01680-01682	1996	Bonneau, J.L. and D.L. Scarnecchia. 1996. Distribution of juvenile bull trout in a thermal gradient of a plunge pool in Granite Creek, Idaho. Transactions of the American Fisheries Society 125: 628-630.
<a href="#">177</a>	01683-01692	1997	Brewin, P.A. and M. K. Brewin. 1997. Distribution Maps for Bull Trout in Alberta. Pages 209-216 in Mackay, W.C., M.K. Brewin and M. Monita. Friends of the bull Trout Conference Proceedings.
<a href="#">178</a>	01693-01805	Mar-92	Brown, L.G. 1992. On the zoogeography and life history of Washington native charr Dolly Varden ( <i>Salvelinus malma</i> ) and bull trout ( <i>Salvelinus confluentus</i> ). Washington Department of Wildlife, Fisheries Management Division Report, Olympia, Washington.
<a href="#">179</a>	01806-01814	1997	Buchanan, D.V., and S.V. Gregory. 1997. Development of water temperature standards to protect and restore habitat for bull trout and other cold water species in Oregon. Pages 119-126 in Mackay, W.C., M.K. Brewin, and M. Monita, eds. Friends of the bull trout conference proceedings. Bull Trout Task Force (Alberta), do Trout Unlimited Canada, Calgary.
<a href="#">180</a>	01815-01999	Oct-97	Buchanan, D.V., M.L. Hanson, and R.M. Hooton. 1997. Status of Oregon's bull trout, distribution, life history, limiting factors, management considerations and status. Oregon Department of Fish and Wildlife.
<a href="#">181</a>	02000-02010	Feb-03	Carnefix, G. 2003. Montana's fish species of special concern: bull trout.

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">182</a>	02011-02029	1978	Cavender, T. M. 1978. Taxonomy and distribution of the bull trout, <i>Salvelinus confluentus</i> (Suckley), from the American Northwest. California Fish and Game.
<a href="#">183</a>	02030-02038	1973	Coutant, C.C. 1973. Effects of thermal shock on vulnerability of juvenile salmonids to predation. J. Fish. Res. Bd. Canada 30: 965-973.
<a href="#">184</a>	02039-02054	10/5/1994	Crane, P.A., L.W. Seeb, and J.E. Seeb. 1994. Genetic relationships among <i>Salvelinus</i> species inferred from allozyme data. Canadian Journal of Fisheries and Aquatic Sciences 51:182-197.
<a href="#">185</a>	02055-02064	1993	Donald, D.B. and D.J. Alger. 1993. Geographic distribution, species displacement, and niche overlap for lake trout and bull trout in mountain lakes. Canadian Journal of Zoology 71: 238-247.
<a href="#">186</a>	02065-02109	4/30/1999	Dunham, J. 1999. Stream temperature criteria for Oregon's Lahontan cutthroat trout <i>Oncorhynchus clarki henshawi</i> - final report. Prepared for Oregon Department of Environmental Quality, Portland, OR. April 30, 1999.
<a href="#">187</a>	02110-02187	Jan-98	Flatter, B. 1998. Life history and population status of migratory bull trout ( <i>Salvelinus confluenrus</i> ) in Arrowrock Reservoir, Idaho. Prepared for U.S. Bureau of Reclamation by Idaho Department of Fish and Game, Nampa, Idaho.
<a href="#">188</a>	02188-02290	1989	Fraley, J.J., and B.B. Shepard. 1989. Life history, ecology and population status of migratory bull trout ( <i>Salvelinus confluenrus</i> ) in the Flathead Lake and River System, Montana. Northwest Science 63(4): 133-143.
<a href="#">189</a>	02291-02325	1968	Fulton, L.A. 1968. Spawning areas and abundance of Chinook salmon, <i>Oncorhynchus tshawytscha</i> , in the Columbia River basin — past and present. U.S. Fish and Wildlife Service, Special Scientific Report, Fisheries. 571:26.
<a href="#">190</a>	02326-02344	1996	Gammett, B. 1996, Draft Part 2: Overview by Species.
<a href="#">191</a>	02345-02652	May-99	Gammett, B. 1999. The History and Status of Fisheries in the Little Lost River drainage, Idaho. Miscellaneous information contained in draft report. US Forest Service.
<a href="#">192</a>	02653-02657	8/16/1997	Gilpin, M. 1997. Connectivity on the Clark Fork: The bigger picture.
<a href="#">193</a>	02658-02715	Feb-89	Goetz, F. 1989. Biology of the bull trout, <i>Salvelinus confluentus</i> , a literature review. Willamette National Forest. Eugene, Oregon.
<a href="#">194</a>	02716-02723	1990	Greene, P.M., N. Billington, and P.D.N. Hebert. 1990. Phylogenetic relationships among members of <i>Salvelinus</i> inferred from Mitochondrial DNA divergence. Can. J. Fish. Aquat. Sci. 47: 984-991.
<a href="#">195</a>	02724-02744	1991	Haas, G.R., and J.D. McPhail. 1991. Systematics and distributions of Dolly Varden ( <i>Salvelinus malma</i> ) and bull trout ( <i>Salvelinus confluenrus</i> ) in North America. Can. J. Fish. Aquatic Sciences 48: 2191- 2211.
<a href="#">196</a>	02745-02811	Jan-89	Hoelscher, B. and T.C. Bjorn. 1989. Habitat, densities and potential production of trout and char in Pend Oreille Lake tributaries. Project F-71-R-10, Subproject III, Job No. 8. Idaho Department of Fish and Game, Boise, ID.
<a href="#">197</a>	02812-02881	1992	Howell, P.J. and D.V. Buchanan, eds. 1992. Proceedings of the Gearhart Mountain bull trout workshop. Oregon Chapter of the American Fisheries Society, Corvallis, OR. Kann, J. 1998. Klamath Tribes, Chiloquin, Oregon. EPA personal communication.
<a href="#">198</a>	02882-03007	May-95	Jakober, M. 1995. Autumn and Winter Movement and Habitat Use of Resident Bull Trout and Westslope Cutthroat Trout in Montana.

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">199</a>	03008-03034	Nov-96	Klamath Tribes Natural Resources Department. 1996. Draft, A synopsis of the early life history and ecology of catostomids, with a focus on the Williamson River Delta
<a href="#">200</a>	03035-03040	1997	Leary, R.F. and F.W. Allendorf. 1997. Genetic confirmation of sympatric bull trout and Dolly Varden in western Washington. Transactions of the American Fisheries Society 126:715-720.
<a href="#">201</a>	03041-03248	Oct-82	Leathe, S.A. and P. Graham. 1982. Flathead Lake Fish Food Habits Study. Environmental Protection Agency, through Steering Committee for the Flathead River Basin Environmental Impact Study.
<a href="#">202</a>	03249-03262	1993	Maret, T.R., T.A. Burton, G.W. Harvey. and W.H. Clark. 1993. Field testing of new monitoring protocols to assess brown trout spawning habitat in an Idaho stream. N. Am. J. Fish. Man. 13:567-580.
<a href="#">203</a>	03263-03365	Aug-88	Mauser, G.R., R.W. Vogelsang, and C.L. Smith. 1988. Enhancement of Trout in Large North Idaho Lakes. Idaho Department of Fish and Game. Project # F-73-R-10.
<a href="#">204</a>	03366-03654	2/22/1999	McCullough, D.A. 1999. A review and synthesis of effects of alterations to the water temperature regime on freshwater life stages of salmonids, with special reference to chinook salmon. Prepared for the U.S. Environmental Protection Agency, Region 10, Seattle, Washington.
<a href="#">205</a>	03655-03691	1996	McPhail, J.D., and J.S. Baxter. 1996. A Review of Bull Trout ( <i>Salvelinus confluentus</i> ) Life-history and Habitat Use in Relation to Compensation and improvement Opportunities. University of British Columbia. Fisheries Management Report #104.
<a href="#">206</a>	03692-03824	Dec-79	McPhail, J.D., and C.B. Murray. 1979. The early life-history and ecology of Dolly Varden ( <i>Salvelinus malma</i> ) in the Upper Arrow Lakes. Department of Zoology and Institute of Animal Resources, University of British Columbia, Vancouver, British Columbia.
<a href="#">207</a>	03825-03922	Jul-93	Monda, D. and M.K. Saiki. 1993. Tolerance of Juvenile Lost River and Shortnose Suckers to High pH, Ammonia concentration, and Temperature, and to Low Dissolved Oxygen concentration. USFWS Report for US Bureau of Reclamation. July 1995.
<a href="#">208</a>	03923-03930	1988	Moyle, P. and J. Cech, Jr. 1988. Fishes: an introduction to ichthyology. Prentice Hall, Inc., New Jersey.
<a href="#">209</a>	03931-04096	Jun-95	ODEQ (Oregon Department of Environmental Quality). 1995. Dissolved Oxygen. Final Issue Paper. 1992-1994 Water quality standards review. Standards and Assessment Section, Portland, Oregon.
<a href="#">210</a>	04097-04119	4/26/2001	ODEQ (Oregon Department of Environmental Quality). 2003. A Summary of the discussion and findings of ODEQ's Technical Advisory Committee on Water Quality Criteria for Temperature. Oregon Department of Environmental Quality, Portland, Oregon.
<a href="#">211</a>	04120-04132	Jun-96	ODFW (Oregon Department of Fish and Wildlife). 1996. Species at Risk: Sensitive, Threatened and Endangered Vertebrates of Oregon. ODFW, Portland.
<a href="#">212</a>	04133-04136	1989	Phillips, R. B., K.A. Pleyte, and P.E. Ihssen. 1989. Patterns of chromosomal nuclear organizer region (NOR) variation in fishes of the genus <i>Salvelinus</i> . Copeia, 1989: 47-53.
<a href="#">213</a>	04137-04144	6/2/1992	Pleyte, K.A., S.D. Duncan, and R. B. Phillips. 1992, Evolutionary relationships of the salmonids fish genus <i>Salvelinus</i> inferred from DNA sequences of the first internal transcribed spacer (ITS 1) of ribosomal DNA

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">214</a>	04145-04152	1992	Pratt, K.L. 1992. A Review of bull trout life history. 00. 5-9. In Proceedings of the Gearhart Mountain Bull Trout Workshop, ed. Howell, P.J. and D.V. Buchanan. Gearhart Mountain, OR. Corvallis, OR: Oregon Chapter of the American Fisheries Society. August 1992.
<a href="#">215</a>	04153-04222	1985	Pratt, K.L. 1985. Pend Oreille trout and char life history study. Idaho Department of Fish and Game, Boise, Idaho.
<a href="#">216</a>	04223-04422	12/1/1993	Pratt, K.L., and J.E. Huston. 1993. Status of bull trout ( <i>Salvelinus confluentus</i> ) in Lake Pend Oreille and the lower Clark Fork River: (draft report) Prepared for the WWPC, Spokane, WA.
<a href="#">217</a>	04423-04430	1992	Ratliff, D. E. and P.J. Howell, 1992. The status of bull trout populations in Oregon. Proceeding of the Gearhart mountain bull trout workshop.
<a href="#">218</a>	04431-04490	May-96	Rich, C.F., Jr. 1996. Influence of abiotic and biotic factors on occurrence of resident bull trout in fragmented habitats, western Montana. MS thesis, Montana State University, Bozeman, MT.
<a href="#">219</a>	04491-04500	2001	Rieman, B.E. and F.W. Allendorf. 2001 (in press) Effective population size and Genetic conservation criteria for bull trout.
<a href="#">220</a>	04501-04508	Nov-97	Rieman, B., and J. Clayton. 1997. Wildfire and native fish: issues of forest health and conservation of sensitive species. Fisheries 22(1 1):6-15.
<a href="#">221</a>	04509-04547	2/16/1999	Reiman, B., and G. Chandler. 1999. Empirical evaluation of temperature effects on bull trout distribution in the Northwest. Final Report. Contract No. 12957242-01-0. U.S. Environmental Protection Agency, Boise, ID.
<a href="#">222</a>	04548-04589	Sep-93	Rieman, B.E., and J.D. McIntyre. 1993. Demographic and habitat requirements of bull trout <i>Salvelinus confluentus</i> . General Technical Report INTGTR- 302. U.S. Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah.
<a href="#">223</a>	04590-04601	May-95	Rieman, B.E., and J.D. McIntyre. 1995. Occurrence of bull trout in naturally fragmented habitat patches of varied size. Transactions of the American Fisheries Society 124:285-296.
<a href="#">224</a>	04602-04611	1996	Rieman, B.E. and J.D. McIntyre. 1996. Spatial and temporal variability in bull trout redd counts. North American J. of Fisheries Manage. 16: 132-141.
<a href="#">225</a>	04612-04615	1/30/1997	Rieman, B.E. and D.L. Myers. 1997. Use of redd counts to detect trends in bull trout ( <i>Salvelinus confluentus</i> ) populations. Conservation Biology 11:1015-1018.
<a href="#">226</a>	04616-04630	1997	Reiman, B.E., Lee, D. and R.F. Thurow. 1997. Distribution, status and likely future trends of bull trout within the Columbia River and Kiamath River basins. North American J. of Fisheries Manage. 17:1111-1125.
<a href="#">227</a>	04631-04911	2000	Risser, P.O. 2000. Oregon State of the Environment Report. Oregon Progress Board.
<a href="#">228</a>	04912-04968	1998	Scheerer P.D. and O. D. Apke. 1998. Oregon Chub Research (1997): Middle Fork Willamette and Santiam River Drainages. Annual Progress Report. Fish Research Projects. Oregon.
<a href="#">229</a>	04969-04992	1999	Scheerer, P. 1999. Oregon chub research in the Willamette Valley 1991-1999. Oregon Department of Fish and Wildlife, Corvallis, OR.
<a href="#">230</a>	04993-05087	2000	Scheerer, P. D and P.J. McDonald. 2000. Oregon Chub Research: Middle Fork Willamette and Santiam River Drainages. Contract #W66QKZ93345985. Oregon Department of Fish and Wildlife. Corvallis, Oregon.
<a href="#">231</a>	05088-05117	2003	Scheerer, P., P.S. Kavanagh, and K. Jones. 2003. Oregon Department of Fish and Wildlife Annual Progress Report on Oregon chub. Project Number E-2-35.

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">232</a>	05118-05131	1986	Scoppettone G.G. 1986. Upper Klamath Lake, Oregon Catostoinid Research. Completion Report, U.S. Fish and Wildlife Service, National Fisheries Research Center, Seattle, WA
<a href="#">233</a>	05132-05147	1991	Sedell, J.R. and R.L. Beshta. 1991. Bringing back the "bio" in bioengineering. Pages 160-175 in Colt, J. and S. Dendral eds., Fisheries Bioengineering: Proceedings of the Symposium. American Fisheries Society Special Publication Number 10.
<a href="#">234</a>	05148-05153	1991	Sedell, J.R. and F.H. Everest. 1991. Historic changes in pool habitat for Columbia River Basin salmon under study for TES listing. Draft USDA Report. Pacific Northwest Research Station. Corvallis, OR.
<a href="#">235</a>	05154-05165	2001	Selong, J.H., T.E. McMahon, A.V. Zale, and F.T. Barrows. 2001. Effect of temperature on growth and survival of bull trout, with application of an improved method for determining thermal tolerance in fishes. Transactions of the American Fisheries Society. 130: 1026-1037.
<a href="#">236</a>	05166-05175	1997	Sexauer, H.M., and P.W. James. 1997. Microhabitat Use by Juvenile Trout in Four Streams Located in the Eastern Cascades, Washington. Pages 361-370 in W.C. Mackay, M.K. Brown and M. Monita (eds.). Friends of the Bull Trout Conference Proceedings. Bull Trout Task Force (Alberta), do Trout Unlimited Calgary, Canada.
<a href="#">237</a>	05176-05186	1984	Shepard, B.B., S.A. Leathe, T.M. Weaver, and M.D. Enk. 1984. Monitoring levels of fine sediment within tributaries of Flathead Lake and impacts of fine sediment on bull trout recruitment. Proceedings of the Wild Trout III Symposium, Yellowstone National Park, Wyoming.
<a href="#">238</a>	05187-05191	1982	Simpson, J.C., and R.L. Wallace. 1982. Fishes of Idaho. University Press of Idaho. Moscow, ID.
<a href="#">239</a>	05192-05356	Dec-96	Spence, B.C., G.A. Lomnický, R.M. Hughes, R.P. Novitzki. 1996. An ecosystem approach to salmonid conservation. TR-4501-96-6057. ManTech Environmental Research Services Corp., Corvallis, OR.
<a href="#">240</a>	05357-05373	1996	Stednick, J.D. 1996. Monitoring the effects of timber harvest on annual water yield. Journal of Hydrology 176:79-95.
<a href="#">241</a>	05374-05385	1997	Swanberg, T.R. 1997. Movements of and Habitat use by fluvial bull trout in the Blackfoot River, Montana. Transactions of the American Fisheries Society 126:735-746.
<a href="#">242</a>	05386-05490	Aug-92	Thomas, G. 1992. Status of bull trout in Montana. Report prepared for Montana Department of Fish, Wildlife and Parks, Helena, Montana.
<a href="#">243</a>	05491-05711	Jul-92	Underwood, K.D., S.W. Martin, M.L. Schuck, and A.T. Scholz. 1992. Investigations of bull trout (Salvelinus confluentus), steelhead trout (Oncorhynchus mykiss), and spring shinook salmon (O. tshawytscha) interactions in southeast Washington Streams. 1991 Annual Report. U.S. Department of Energy, Bonneville Power Administration, Division of Fish and Wildlife. Project No. 90-053, Contract No. DE-BI79-91BP17758
<a href="#">244</a>	05712-05774	4/5/1997	USBOR (U.S. Bureau of Reclamation). 1997. Biological report on the Klamath project 1997 operations plan. USBR, Mid-Pacific Region, Klamath Basin Area Office.
<a href="#">245</a>	05775-05827	April 1986	USEPA (U.S. Environmental Protection Agency). 1986. Ambient water quality criteria for dissolved oxygen. EPA 440/5-86-003. Office of Water Regulations and Standards, Criteria and Standards Division, Washington DC.

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">246</a>	05828-05973	9/15/1998	USEPA (U.S. Environmental Protection Agency). 1998. Biological assessment of the revised Oregon water quality standards for dissolved oxygen, temperature, and pH. U.S. Environmental Protection Agency, Seattle, WA.
<a href="#">247</a>	05974-05978	6/11/1985	USFWS (U.S. Fish and Wildlife Service). 1985. Endangered and threatened wildlife and plants; determination of endangered status and critical habitat for the Modoc sucker, Final Rule, June 11, 1985
<a href="#">248</a>	05979-06089	Apr-93	USFWS (U.S. Fish and Wildlife Service). 1993. Lost River ( <i>Deltistes luxatus</i> ) and shortnose ( <i>Chasmistes brevirostris</i> ) sucker Recovery Plan. Portland, Oregon.
<a href="#">249</a>	06090-06246	Jan-95	USFWS (U.S. Fish and Wildlife Service). 1995. Lahontan cutthroat trout, <i>Oncorhynchus clarki henshawi</i> , Recovery Plan. Portland, Oregon 147 pp.
<a href="#">250</a>	06247-06342	9/3/1998	USFWS (U.S. Fish and Wildlife Service). 1998a. Recovery plan for the Oregon chub ( <i>Oregonichthys crameri</i> ). U.S. Fish and Wildlife Service, Portland, OR. 59 pages.
<a href="#">251</a>	06343-06441	4/27/1998	USFWS (U.S. Fish and Wildlife Service). 1998b. Recovery plan for the native fishes of the Warner Basin and Alkali subbasin. U.S. Fish and Wildlife Service, Portland, OR. 86 pp.
<a href="#">252</a>	06442-06497	7/1/1999	USFWS (U.S. Fish and Wildlife Service). 1999. Oregon water quality standards ESA consultation. U.S. Department of the Interior, US. Fish and Wildlife Service, Oregon State Office, Portland, OR. July 1, 1999.
<a href="#">253</a>	06498-06500	2002	USFWS (U.S. Fish and Wildlife Service). 2002a. Bull trout ( <i>Salvelinus confluentus</i> ) endangered species fact sheet.
<a href="#">254</a>	06501-06647	Oct-02	USFWS (U.S. Fish and Wildlife Service). 2002b. Bull trout ( <i>Salvelinus confluentus</i> ) Draft Recovery Plan. Portland, Oregon
<a href="#">255</a>	06648-06650	2003	USFWS (U.S. Fish and Wildlife Service). 2003a. Lahontan cutthroat trout ( <i>Oncorhynchus clarki henshawi</i> ) endangered species fact sheet.
<a href="#">256</a>	06651-06653	2003	USFWS (U.S. Fish and Wildlife Service). 2003b. Oregon chub ( <i>Oregonichthys crameri</i> ) endangered species fact sheet.
<a href="#">257</a>	06654-07024	Mar-98	USFWS (U.S. Fish and Wildlife Service) and NMFS (National Marine Fisheries Service). 1998. Consultation handbook: procedures for conducting consultation and conference activities under Section 7 of the Endangered Species Act.
<a href="#">258</a>	07025-07039	Mar-62	Vaux, W.G. 1962. Interchange of stream and intragravel water in a salmon spawning riffle. Special Scientific Report — Fisheries No. 405. U.S. Dept. of the Interior, Fish and Wildlife Service.
<a href="#">259</a>	07040-07114	Mar-97	WDFW (Washington Department of Fish and Wildlife). 1997. Grandy creek trout hatchery biological assessment, bald eagle, marbled murrelet, northern spotted owl, spotted frog, bull trout
<a href="#">260</a>	07115-07558	Jul-98	WDFW (Washington Department of Fish and Wildlife). 1998. Washington State Salmonid Stock Inventory - Bull Trout/Dolly Vardin.
<a href="#">261</a>	07559-07574	May-97	Watson, G., and T.W. Hillman. 1997. Factors affecting the distribution and abundance of bull trout: and investigation at hierarchical scales. North American Journal of Fisheries Management 17:237-252.
<a href="#">262</a>	07575-07580	1973	Wedemeyer, G. 1973. Some physiological aspects of sublethal heat stress in the juvenile steelhead trout ( <i>Salmo gairdneri</i> ) and coho salmon ( <i>Oncorhynchus kisutch</i> ). J. Fish. Res. Bd. Canada 30:831-834.
<a href="#">263</a>	07581-07581	3/1/2001	Werdon, S., U.S. Fish and Wildlife Service. 2001. email message. BTRP citations

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">264</a>	07582-07591	1960	Whitmore, C.M., C.E. Warren, and P. Doudoroff. 1960. Avoidance reactions of salmonid and centrarchid fishes to low oxygen concentrations. Transactions of the American Fisheries Society. 89(1):17-26.
<a href="#">265</a>	07592-07603	1992	Ziller, J.S. 1992. Distribution and relative abundance of bull trout in the Sprague River subbasin, Oregon. Pages 18-29 in Howell, P.J. and D.V. Buchanan, editors. Proceedings of the Gearhart Mountain bull trout workshop. Oregon Chapter of the American Fisheries Society, Corvallis, OR.
<b>Documents Included in NMFS' or EPA's Administrative Records That Are Also Part of FWS' Administrative Record</b>			
	NMFS AR Doc. 22 EPA AR Doc. 156	1987	Chapman, D. W. and McLeod, K.P. 1987. Development of Criteria for Fine Sediment in the Northern Rockies Ecoregion, Final Report EPA, contract No. 68-01-6986. EPA910/9-87-162
	NMFS AR Doc. 27	Jul-03	Dewberry, T.C. 2003. Development and application of anchor habitat approaches to salmon conservation: A synthesis of data and observation from the Siuslaw watershed, coastal Oregon. Unpublished draft report. Portland, Oregon. 16 p. July.
	NMFS AR Doc. 30 EPA AR Doc. 96	Mar-01	Ecotrust, Oregon Trout, and The Wild Salmon Center. 2000. A Salmon Anchor Habitat Strategy for the Tillamook and Clatsop State Forests. Updated Version, March 2001. Portland, Oregon. 29 p. plus appendices.
	NMFS AR Doc. 39 EPA AR Doc. 163	Jun-81	Hollender, B. A. 1981. Embryo Survival, Substrate Composition, and Dissolved Oxygen in Redds of Wild Brook Trout. M. S. Thesis, Univ. of Wisconsin
	EPA AR Doc. 108	9/19/2002	Myrick, Christopher A., et al. Sept. 19, 2002. Bull Trout Temperature Thresholds Peer Review Summary
	NMFS AR Doc. 69 EPA AR Doc. 101	2/26/2002	Oregon Department of Fish and Wildlife, 1:24K Fish Habitat Distribution Development Project Procedures Manual
	EPA AR Doc. 64	2/4/2004	U.S. EPA Biological Evaluation of the Revised Oregon Water Quality Standards for Temperature, Intergravel Dissolved Oxygen, and Antidegradation, Amended Final, prepared for USFWS and NMFS by EPA, Region 10
	NMFS AR Doc. 31 EPA AR Doc. 104	Apr-03	U.S. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards, April 2003, EPA 910-B-03-002
	NMFS AR Doc. 81 EPA AR Doc. 121	May-01	U.S. EPA Issue Paper 1: Salmonid Behavior and Water Temperature, Prepared as Part of EPA Region 10 Temperature Water Quality Criteria Guidance Development Project, EPA-910-D-01-001, May 2001
	NMFS AR Doc. 28 EPA AR Doc. 122	May-01	U.S. EPA Issue Paper 2: Salmonids Distribution and Temperature, Prepared as Part of EPA Region 10 Temperature Water Quality Criteria Guidance Development Project, EPA-910-D-01-002, May 2001
	NMFS AR Doc. 74 EPA AR Doc. 117	Oct-01	U.S. EPA Issue Paper 3: Spatial and Temporal Patterns of Stream Temperature, Prepared as Part of EPA Region 10 Temperature Water Quality Criteria Guidance Development Project, EPA-910-D-01-003, Oct. 2001
	NMFS AR Doc. 47 EPA AR Doc. 123	May-01	U.S. EPA Issue Paper 4: Temperature Interaction, Prepared as Part of EPA Region 10 Temperature Water Quality Criteria Guidance Development Project, EPA-910-D-01-004, May 2001

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
	NMFS AR Doc. 52 EPA AR Doc. 124	May-01	U.S. EPA Issue Paper 5: Summary of Technical Literature Examining the Physiological Effects of Temperature on Salmonids, Prepared as Part of EPA Region 10 Temperature Water Quality Criteria Guidance Development Project, EPA-910-D-01-005, May 2001
	NMFS AR Doc. 98 EPA AR Doc. 119	Aug-01	U.S. EPA Technical Synthesis: Scientific Issues Relating to Temperature Criteria for Salmon, Trout, and Char Native to the Pacific Northwest: A Summary Report Submitted to the Policy Workgroup of the EPA Region 10 Water Temperature Criteria Guidance Project, EPA-910-D-01-007
	EPA AR Doc. 95	1972	National Academy of Sciences. 1972. Water Quality Criteria 1972 A Report of the Committee on Water Quality Criteria, Environmental Studies Board, National Academy of Sciences. U.S. Environmental Protection Agency. EPA.R3.73.
	EPA AR Doc. 159	Apr-86	U.S. EPA. 1986. Ambient Water Quality Criteria for Dissolved Oxygen (Freshwater), Office of Water Regulations and Standards, Criteria and Standards Division, EPA 440/5-86-003
<b>Supplemental Administrative Record dated March 18, 2008</b>			
<a href="#">266</a>	07604-07605	12/2/2003	FWS comments on the Analysis of Effects on Draft Biological Evaluation (BE)
<a href="#">267</a>	07606-07620	Nov-03	Designated Use Maps
<a href="#">268</a>	07621-07622	10/8/2003	Draft Where and When Comments (Fish Use Maps and Tables)
<a href="#">269</a>	07623-07625	10/6/2003	Comments on Final Draft Biological Assessment (BA) by Elizabeth Materna, FWS
<a href="#">270</a>	07626-07628	10/1/2003	Draft FWS Comments on Oregon Proposed Rule
<a href="#">271</a>	07629-07630	9/17/2003	Elizabeth Materna, FWS Handwritten Notes from conversation with Chris Allen, FWS
<a href="#">272</a>	07631-07632	9/2/2003	Comments by Elizabeth Materna, FWS, on draft BA for EPA's Promulgation WQ Standards for Oregon
<a href="#">273</a>	07633-07634	8/28/2003	Elizabeth Materna, FWS, Handwritten Notes from Where and When Conference Call
<a href="#">274</a>	07635-07635	8/20/2003	Elizabeth Materna, FWS, comments on Analysis of Effects Dry Run
<a href="#">275</a>	07636-07638	8/6/2003	Elizabeth Materna, FWS, Handwritten notes on Where and When Conference Call
<a href="#">276</a>	07639-07640	8/6/2003	Final Draft of Decision Rules to Designate Pacific Salmon and Bull Trout Beneficial Uses in Oregon
<a href="#">277</a>	07641-07643	8/5/2003	Final Draft of Decision Rules to Designate Pacific Salmon and Bull Trout Beneficial Uses in Oregon
<a href="#">278</a>	07644-07645	7/30/2003	Elizabeth Materna, FWS, Handwritten notes on Where and When Conference Call
<a href="#">279</a>	07646-07726	7/21/2003	Draft Department of Environmental Quality Water Pollution Division 41 Water Quality Standards Beneficial Uses, Policies and Criteria for Oregon
<a href="#">280</a>	07727-07727	7/15/2003	Elizabeth Materna, FWS, comments on Draft Biological Assessment (BA)
<a href="#">281</a>	07728-07729	7/11/2003	Decision Rule Assumptions to Date
<a href="#">282</a>	07730-07745	7/7/2003	Draft Bull Trout Critical Habitat Maps with handwritten notes
<a href="#">283</a>	07746-07774	7/7/2003	Draft Oregon Temperature Criteria
<a href="#">284</a>	07775-07775	6/10/2003	Elizabeth Materna, FWS, Handwritten Notes
<a href="#">285</a>	07776-07866	Jan-03	Draft US Fish and Wildlife Service (USFWS) Biological Opinion (BO) for EPA Approval of Oregon Water Quality Standards
<a href="#">286</a>	07867-07871	No Date	Elizabeth Materna, FWS, Handwritten Notes on Basin Timing
<a href="#">287</a>	07872-07872	No Date	Elizabeth Materna, FWS, Handwritten Notes
<a href="#">288</a>	07873-07884	No Date	Hood River Map Revisions
<a href="#">289</a>	07885-07885	No Date	Elizabeth Materna, FWS, Handwritten Notes from discussion with Janine Castro, FWS

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">290</a>	07886-07890	No Date	John Day Bull Trout Core Area Maps with handwritten notes from Elizabeth Materna, FWS
<a href="#">291</a>	07891-07892	No Date	Elizabeth Materna, FWS, Handwritten notes on Effects Analysis
<a href="#">292</a>	07893-07899	No Date	Table of Bull Trout Effects at various temp.
<a href="#">293</a>	07900-07943	No Date	Draft USFWS Biological Opinion for EPA Approval of Oregon Water Quality Standards
<b>Biological Opinion Email Messages</b>			
<a href="#">294</a>	07944-07944	2/11/2004	EMail from David Leal, FWS, to Elizabeth Materna, FWS, Subject: Paul Bridges, FWS, status of the species for bull trout/Oregon chub, with 1 attachment
<a href="#">295</a>	07945-08008	2/11/2004	Attachment 1: Status of the Species, Oregon Chub
<a href="#">296</a>	08009-08009	2/9/2004	EMail from Jennifer Lord, FWS, to Elizabeth Materna, FWS, Subject: Review of Oregon chub information
<a href="#">297</a>	08010-08010	1/29/2004	Email from Jeff Lockwood, NOAA, to Mark Charles, ODEQ, et al., Subject: DEQ Temperature Letter No. 2
<a href="#">298</a>	08011-08012	1/22/2004	Email from Cathy Tortorici, NOAA, to John Palmer, EPA, et al., Subject: Revised conservation Measure #1 (slight date change)
<a href="#">299</a>	08013-08013	12/19/2003	Email from Emily Smith, DEQ, to Chris Mebane, NOAA, et al., Subject: DEQ Response to Public Comment Summary, with 1 attachment
<a href="#">300</a>	08014-08061	12/19/2003	Attachment 1: Attachment B Division 41 Revisions Response to Public Comment (11-10-03)
<a href="#">301</a>	08062-08062	12/18/2003	EMail from Debra Sturdevant, DEQ, to Chris Mebane, NOAA, et al., Subject: Environmental Quality Commission adopts Temperature Rule
<a href="#">302</a>	08063-08064	12/17/2003	EMail from Dru Keenan, EPA, to Elizabeth Materna, FWS, Subject: Draft Conservation Measures Please Review, with 2 attachments.
<a href="#">303</a>	08065-08066	12/17/2003	Attachment 1: Re-draft of Conservation Measures based on December 11th conference call
<a href="#">304</a>	08067-08068	12/17/2003	Attachment 2: 12/15/03 Draft of Conservation Measures based on December 11th conference call
<a href="#">305</a>	08069-08071	12/17/2003	Email from Dru Keenan, EPA, to Elizabeth Materna, FWS, Subject: Oregon Clarification Letter, with 1 attachment
<a href="#">306</a>	08072-08073	12/17/2003	Attachment 1: 12/15/03 Draft of Conservation Measures based on December 11th conference call
<a href="#">307</a>	08074-08076	12/16/2003	Email from Elizabeth Materna, FWS, to John Palmer, EPA, et al., Subject: Oregon Clarification Letter with 1 attachment
<a href="#">308</a>	08077-08078	12/16/2003	Attachment 1: Re-draft of Conservation Measures Dec 15, 2003
<a href="#">309</a>	08079-08079	12/11/2003	Email from Chris Allen, FWS, to Elizabeth Materna, FWS, Subject: bull trout status of the species, with 1 attachment
<a href="#">310</a>	08080-08119	12/11/2003	Attachment 1: Status of Species Critical Habitat, Bull Trout
<a href="#">311</a>	08120-08120	12/11/2003	Email from Chris Allen, FWS, to Elizabeth Materna, FWS, Subject: Chapter 1 on Bull Trout Development, with 1 attachment
<a href="#">312</a>	08121-08267	12/11/2003	Attachment 1: Bull Trout Draft Recovery Plan, Chapter 1 Introductory, October 2002
<a href="#">313</a>	08268-08271	12/4/2003	Email from Dru Keenan, EPA, to Elizabeth Materna, FWS, Subject: decision rules
<a href="#">314</a>	08272-08272	11/24/2003	EMail from Debra Sturdevant, DEQ, to Larry Knudsen, OSU, et al, Subject: Possible bull trout criteria revision, with 1 attachment
<a href="#">315</a>	08273-08276	11/24/2003	Attachment 1: Bull trout changes
<a href="#">316</a>	08277-08277	11/24/2003	Email from Debra Sturdevant, DEQ, to Larry Knudsen, OSU, et al., Subject: Possible bull trout criteria revision, with 1 attachment
<a href="#">317</a>	08278-08281	11/24/2003	Attachment 1: Bull trout changes

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">318</a>	08282-08282	11/20/2003	Email from Jeff Lockwood, NOAA, to Deb Sturdevant, ODEQ, et al., Subject: issue or clarification- protecting cold water
<a href="#">319</a>	08283-08288	11/4/2003	Email from Anne Walker, FWS, to Elizabeth Materna, FWS, Subject: Holy Heat Sump, temperature below Clear Branch Dam
<a href="#">320</a>	08289-08290	11/4/2003	Email from Elizabeth Materna, FWS, to Mark Charles, DEQ, et al., Subject: Two more comments on latest Draft of Division 41 11/3/03
<a href="#">321</a>	08291-08291	11/3/2003	Email from Mark Charles, DEQ to Mark Charles, DEQ, et al., Subject: Latest Draft of Division 41 11/3/03, with 1 attachment
<a href="#">322</a>	08292-08396	11/3/2003	Attachment 1: Department of Environmental Quality Water Pollution Division 41 Water Quality Standards, Beneficial Uses, Policies and Criteria for Oregon, 11/03/03 Draft
<a href="#">323</a>	08397-08397	11/3/2003	Email from Elizabeth Materna, FWS, to Mark Charles, DEQ, et al., Subject: Latest Draft of Division 41 11/3/03
<a href="#">324</a>	08398-08398	11/3/2003	Email from Elizabeth Materna, FWS, to Mark Charles, DEQ, et al., Subject: One other thing in latest draft
<a href="#">325</a>	08399-08399	11/3/2003	Email from Elizabeth Materna, FWS, to Mark Charles, DEQ, et al., Subject: Latest Draft of Division 41 11/3/03
<a href="#">326</a>	08400-08400	11/3/2003	Email from Deb Sturdevant, ODEQ, to Jeff Lockwood, NOAA, et al., Subject: Notes from 10/28 Meeting - Key Unresolved Issues
<a href="#">327</a>	08401-08402	11/3/2003	Email from Jeff Lockwood, NOAA, to Deb Sturdevant, ODEQ, et al., Subject: Ecotrust Data
<a href="#">328</a>	08403-08403	10/31/2003	Email from Mark Charles, DEQ, to Marylou Soscia, EPA, et al., Subject: Trick or Treat Draft of Division 41, with 1 attachment
<a href="#">329</a>	08404-08503	10/31/2003	Attachment 1: Department of Environmental Quality Water Pollution Division 41 Water Quality Standards, Beneficial Uses, Policies and Criteria for Oregon, 10/31/03 Draft
<a href="#">330</a>	08504-08504	10/31/2003	Email from Mark Charles, DEQ to Paula Vanhaagen, EPA, et al., Subject: Revised section 11, with 1 attachment
<a href="#">331</a>	08505-08506	10/31/2003	Attachment 1: Draft revised sections 11&12
<a href="#">332</a>	08507-08507	10/31/2003	Email from Dru Keenan, EPA, to John Palmer, EPA, et al. Subject: Notes from 10/28 Meeting - Key Unresolved Issues, with 1 attachment
<a href="#">333</a>	08508-08509	10/31/2003	Draft Meeting Notes from Where & When Meeting
<a href="#">334</a>	08510-08510	10/30/2003	Email from Jeff Lockwood, NOAA, to Mark Charles, ODEQ, et al., Subject: Oregon rule language
<a href="#">335</a>	08511-08512	10/27/2003	Email from Jeff Lockwood, NOAA, to Deb Sturdevant, ODEQ, et al., Subject: FINAL notes from 10/14 where & when with 1 attachment
<a href="#">336</a>	08513-08514	10/27/2003	Attachment 1: Meeting Notes for October 14, 2003 Beneficial Use Group
<a href="#">337</a>	08515-08515	10/27/2003	Email from Mark Charles, DEQ, to Mark Charles, DEQ, et al, Subject: 10/26 Revision of Proposed Division 41 (Temp) Rule, with 1 attachment
<a href="#">338</a>	08516-08605	10/27/2003	Attachment 1: Department of Environmental Quality Water Pollution Division 41 Water Quality Standards, Beneficial Uses, Policies and Criteria for Oregon, 10/26/03 Draft
<a href="#">339</a>	08606-08607	10/24/2003	Email from Chris Mebane, NOAA, to Jeff Lockwood, NOAA, et al., Subject: Fall chinook spawning/incubation temperature designation, with 2 attachments
<a href="#">340</a>	08608-08615	10/24/2003	Attachment 1: Temperature during Incubation as One Factor Affecting the Distribution of Snake River Fall Chinook Salmon Spawning Areas
<a href="#">341</a>	08616-08616	10/24/2003	Attachment 2: Salmon & Steelhead Spawning Through Fry Emergence Use Designations Umpqua Basin Oregon Map, August 8, 2003
<a href="#">342</a>	08617-08617	10/24/2003	Email from Chris Mebane, NOAA, to Dru Keenan, EPA, et al., Subject: Temperature analysis, round 2, with 1 attachment
<a href="#">343</a>	08618-08624	10/24/2003	Attachment 1: Table with GIS locations

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">344</a>	08625-08625	10/17/2003	EMail from Cedric Cooney, OSU, to Jeff Lockwood, NOAA, et al., Subject: Lines-of-evidence query results - updated as of 10/15/2003 (w/attachment), with 1 attachment
<a href="#">345</a>	08626-08657	10/17/2003	Attachment 1: Temperature Standard Table
<a href="#">346</a>	08658-08658	10/13/2003	EMail from Debra Sturdevant, DEQ, to Robert Anderson, NOAA et al, Subject: Temperature TAC meeting
<a href="#">347</a>	08659-08659	10/10/2003	Email from Chris Mebane, NOAA, to Emily Smith, ODEQ, et al., Subject: NOAA comments on distribution of 16C's in Columbia R subbasins
<a href="#">348</a>	08660-08660	10/8/2003	EMail from Tracy Harrison, DEQ, to Jeff Lockwood, NOAA et al., Subject: Comments from ODEQ and ODFW on Where & When mapping issues, with 1 attachment
<a href="#">349</a>	08661-08663	10/8/2003	Attachment 1: Internal comments received during comment period; Where and When; 10/08/03
<a href="#">350</a>	08664-08664	9/23/2003	EMail from Emily Smith, DEQ, to Elizabeth Materna, FWS, Subject: John Day corrections
<a href="#">351</a>	08665-08665	9/22/2003	EMail from Emily Smith, DEQ, to Elizabeth Materna, FWS, Subject: Bull trout John Day maps
<a href="#">352</a>	08666-08666	9/18/2003	EMail from Emily Smith, DEQ, to Elizabeth Materna, FWS, Subject: Bull trout John Day maps
<a href="#">353</a>	08667-08667	9/10/2003	EMail from Emily Smith, DEQ to Elizabeth Materna, FWS, Subject: Klamath map, with 2 attachments
<a href="#">354</a>	08668-08668	9/10/2003	Attachment 1: Figure 201A/260A; Critical Period Fish Use Designations Powder and Malheur Basins, Oregon; Draft 08/08/03 Map
<a href="#">355</a>	08669-08669	9/10/2003	Attachment 2: Figure 180A; Critical Period Fish Use Designations Klamath Basin, Oregon, Draft 08/08/03 Map
<a href="#">356</a>	08670-08670	8/13/2003	Email from Chris Mebane, NOAA, to Elizabeth Materna, FWS, et al., Subject: Revised Grande Ronde maps - attached with 2 attachments
<a href="#">357</a>	08671-08671	8/13/2003	Attachment 1: Figure 151B: Salmon, Steelhead and Bull Trout Spawning through Fry Emergence Beneficial Use Designation, Grande Ronde Basin
<a href="#">358</a>	08672-08672	8/13/2003	Attachment 2: Figure 151A: Critical Period, Fish Use Designations Grande Ronde Basin, Oregon Draft
<a href="#">359</a>	08673-08675	8/12/2003	EMail from Debra Sturdevant, DEQ to Elizabeth Materna, FWS, Subject: Powder and Malheur summer max map
<a href="#">360</a>	08676-08676	8/11/2003	EMail from Elizabeth Materna, FWS, to Tracy Harrison, DEQ, et al., Subject: Powder and Malheur summer max map, with 1 attachment
<a href="#">361</a>	08677-08677	8/11/2003	Attachment 1: Critical Period, Fish Use Designations Powder and Malheur Basins, Oregon, Draft 08/08/03 Map
<a href="#">362</a>	08678-08679	8/11/2003	EMail from Tracy Harrison, DEQ, to Elizabeth Materna, FWS Subject: Powder and Malheur summer max map
<a href="#">363</a>	08680-08680	8/8/2003	EMail from Tracy Harrison, DEQ, to Chris Mebane, NOAA, et al., Subject: Klamath summer max map, with 1 attachment
<a href="#">364</a>	08681-08681	8/8/2003	Attachment 1: Critical Period, Fish Use Designations, Klamath Basin, Oregon, Draft, 08/08/03 Map
<a href="#">365</a>	08682-08682	8/7/2003	Salmon Steelhead & Bull Trout Spawning Through Fry Emergence Beneficial Use Designations John Day Basin
<a href="#">366</a>	08683-08683	8/7/2003	Salmon Steelhead & Bull Trout Spawning Through Fry Emergence Beneficial Use Designations Umatilla Basin
<a href="#">367</a>	08684-08684	8/7/2003	Salmon Steelhead & Bull Trout Spawning Through Fry Emergence Beneficial Use Designations Deschutes Basin
<a href="#">368</a>	08685-08685	8/7/2003	EMail from Tracy Harrison, DEQ to Chris Mebane, NOAA, et al., Subject: Willamette, Mid Coast, and North Coast spawning maps, with 3 attachments

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">369</a>	08686-08686	8/7/2003	Attachment 1: Salmon, Steelhead & Bull Trout Spawning Through Fry Emergence Use Designations Willamette Basin Oregon, Draft, 08/07/03 Map
<a href="#">370</a>	08687-08687	8/7/2003	Attachment 2: Salmon & Steelhead Spawning Through Fry Emergence Use Designations Mid Coast Basin, Oregon, Draft 08/07/03 Map
<a href="#">371</a>	08688-08688	8/7/2003	Attachment 3: Salmonid Spawning Through Fry Emergence Use Designations North Coast Basin, Oregon, Draft 08/07/03 Map
<a href="#">372</a>	08689-08689	8/6/2003	EMail from William Bogue, EPA, to William Bogue, EPA, et al., Subject: Deschutes Summer Max & Umpqua Spawning Maps, with 2 attachments
<a href="#">373</a>	08690-08690	8/6/2003	Attachment 1: Preliminary Deschutes Basin Summer Maximum Stream Temperature Criteria for Protection of Salmon and Trout Core Rearing & Migration and Bull Trout Spawning Rearing & Migration Map
<a href="#">374</a>	08691-08691	8/6/2003	Attachment 2: Salmon & Steelhead Spawning Through Fry Emergence Use Designations Umpqua Basin Oregon Map
<a href="#">375</a>	08692-08692	8/6/2003	EMail from Tracy Harrison, DEQ, to Chris Mebane, NOAA, et al., Subject: Hood Spawning Map, with 1 attachment
<a href="#">376</a>	08693-08693	8/6/2003	Attachment 1: Salmonid Spawning & Fry Emergence Use Designations Hood Basin, Oregon, Draft 08/06/03 Map
<a href="#">377</a>	08694-08694	8/5/2003	EMail from Debra Sturdevant, DEQ, to John Palmer, EPA, et al., Subject: Final Draft of Where/When Decision Rules, with 1 attachment
<a href="#">378</a>	08695-08696	8/5/2003	Attachment 1: Final Draft of Decision Rules to Designate Pacific Salmon and Bull Trout Beneficial Uses in Oregon; 08/05/2003
<a href="#">379</a>	08697-08698	8/4/2003	EMail from Debra Sturdevant, DEQ, to Elizabeth Materna, FWS, Subject: Prime, sub-prime or cooler habitat
<a href="#">380</a>	08699-08700	7/31/2003	Email from Dru Keenan, EPA, to Elizabeth Materna, FWS, et al., Subject: NEW ALERT Bull Trout additional criteria provision
<a href="#">381</a>	08701-08703	7/31/2003	EMail from Debra Sturdevant, DEQ, to Chris Mebane, NOAA, Subject: Prime, sub-prime, or cooler habitat, possible terms to use for the various temperature categories
<a href="#">382</a>	08704-08704	7/30/2003	EMail from Tracy Harrison, DEQ, to Tracy Harrison, DEQ, et al., Subject: Hood Basin Newest Spawning with and without Bull Trout, with 2 attachments
<a href="#">383</a>	08705-08705	7/30/2003	Attachment 1: Salmonid Spawning and Fry Emergence Use Designations, Hood Basin Oregon; Draft, 07/30/2003
<a href="#">384</a>	08706-08706	7/30/2003	Attachment 2: Salmonid Spawning and Fry Emergence Use Designations, Hood Basin Oregon; Draft, 07/30/2003
<a href="#">385</a>	08707-08707	7/29/2003	Email from Chris Mebane, NOAA, to Tracy Harrison, ODEQ, et al., Subject: Please respond - Revised decision rules with 1 attachment
<a href="#">386</a>	08708-08709	7/29/2003	Attachment 1: Decision Rules for mapping Salmonid Uses, 7/28/03 revision
<a href="#">387</a>	08710-08711	7/28/2003	EMail from Chris Mebane, NOAA, to Debra Sturdevant, DEQ, Subject: Bull trout proposal
<a href="#">388</a>	08712-08712	7/28/2003	EMail from Jennifer Weaver, DEQ, to Bill Blosser, et al., Subject: Nearly Last Call on Division 41 Revisions, with 1 attachment
<a href="#">389</a>	08713-08800	7/28/2003	Attachment 1: Draft #5 (July 28, 2003) DEQ Water Pollution Division 41 State-Wide Water Quality Management Plan; Beneficial Uses, Policies, Standards and Treatment Criteria for Oregon
<a href="#">390</a>	08801-08801	7/25/2003	EMail from Emily Smith, DEQ, to William Bogue, EPA et al., Subject: DEQ bull trout information, <b>all 5 attachments are GIS files that are in one PDF file below</b>
<a href="#">391</a>	08802-08816	7/25/2003	Attachment: Draft GIS Maps
<a href="#">392</a>	08817-08819	7/25/2003	Email from Deb Sturdevant, ODEQ, to John Palmer, EPA, et al., Subject: New Spawning Proposal!!!!

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">393</a>	08820-08820	7/24/2003	EMail from Jennifer Weaver, DEQ, to Bill Blosser, et al., Subject: Division 41 Rewrite with 'HTML Curse' Reversed, with 1 attachment
<a href="#">394</a>	08821-08901	7/24/2003	Attachment 1: Draft #4 (July 21, 2003) DEQ Water Pollution Division 41 State-Wide Water Quality Management Plan; Beneficial Uses, Policies, Standards and Treatment Criteria for Oregon
<a href="#">395</a>	08902-08903	7/23/2003	Email from John Palmer, EPA, to Chris Mebane, NOAA, et al., Subject: New Spawning Proposal
<a href="#">396</a>	08904-08906	7/22/2003	Email from Debra Sturdevant, ODEQ, to Bill Bogue, EPA, et al., Subject: Bull Trout Spawning Mapping & Assigning Values to Diversions
<a href="#">397</a>	08907-08908	7/22/2003	Email from Debra Sturdevant, ODEQ, to Bill Bogue, EPA, et al., Subject: bull trout files - FEEDBACK PLEASE!
<a href="#">398</a>	08909-08910	7/22/2003	Email from Bill Bogue, EPA, to Emily Smith, ODEQ, et al., Subject: bull trout files - FEEDBACK PLEASE!, 1 attachment
<a href="#">399</a>	08911-08911	7/22/2003	Attachment 1: Preliminary John Day Basin Summer Maximum Stream Temperature Criteria for Protection of Salmon & Trout Core Rearing & Migration and Bull Trout Spawning
<a href="#">400</a>	08912-08912	7/22/2003	Email from Bill Bogue, EPA, to Debra Sturdevant, ODEQ, et al., Subject: Deschutes Bull Trout Summer Max, 2 attachments
<a href="#">401</a>	08913-08913	7/22/2003	Attachment 1: Preliminary Deschutes Basin Summer Max Stream Temp Criteria for Protection of Salmon & Trout Core Rearing & Migration, and Bull Trout Spawning, Rearing & Migration
<a href="#">402</a>	08914-08914	7/22/2003	Attachment 2: Preliminary Deschutes Basin Summer Max Stream Temp Criteria for Protection of Salmon & Trout Core Rearing & Migration, and Bull Trout Spawning, Rearing & Migration
<a href="#">403</a>	08915-08915	7/21/2003	Email from Bill Bogue, EPA, to Bill Bogue, et al., Subject: John Day & Rogue Maps for Today's conference call, 4 attachments
<a href="#">404</a>	08916-08916	7/21/2003	Attachment 1: Preliminary Rogue Basin Maximum Stream Temperature Criteria for Protection of Salmon and Trout Spawning
<a href="#">405</a>	08917-08917	7/21/2003	Attachment 2: Preliminary Rogue Basin Summer Max Stream Temperature Criteria for Protection of Salmon & Trout Core Rearing & Migration
<a href="#">406</a>	08918-08918	7/21/2003	Attachment 3: John Day Basin Preliminary Application of 13C Max Stream Temperature Criteria to Protect Salmon/Trout Spawning
<a href="#">407</a>	08919-08919	7/21/2003	Attachment 4: Preliminary John Day Basin Summer Max Stream Temperature Criteria for Protection of Salmon & Trout Core Rearing & Migration and Bull Trout Spawning
<a href="#">408</a>	08920-08920	7/16/2003	Email from Anne Walker, FWS, to Elizabeth Materna, FWS, Subject: Hood BT map, with 1 attachment
<a href="#">409</a>	08921-08921	7/16/2003	Attachment 1: Changes needed to Draft Hood Recovery Unit and Critical Habitat Map for finalization
<a href="#">410</a>	08922-08922	7/14/2003	Email from Mark Charles, DEQ, to Jennifer Weaver, DEQ, et al., Subject: Current New Division 41 Rewrite with Track Changes, with 1 attachment
<a href="#">411</a>	08923-08959	7/14/2003	Attachment 1: Draft DEQ Water Pollution Division 41 State-Wide Water Quality Management Plan; Beneficial Uses, Policies, Standards and Treatment Criteria for Oregon; July 14, 2003 (3rd draft)
<a href="#">412</a>	08960-08960	7/14/2003	Email from Mark Charles, DEQ, to Jennifer Weaver, DEQ, et al., Subject: Current New Division 41 Rewrite with Track Changes, with 1 attachment
<a href="#">413</a>	08961-08997	7/14/2003	Attachment 1: Draft DEQ Water Pollution Division 41 State-Wide Water Quality Management Plan; Beneficial Uses, Policies, Standards and Treatment Criteria for Oregon; July 14, 2003 (3rd draft)
<a href="#">414</a>	08998-08999	7/11/2003	Email from Dru Keenan, EPA, to Cedric Cooney, ODFW, et al., Subject: Decision Rules Justifications/Assumptions- to date; 1 attachment
<a href="#">415</a>	09000-09001	7/11/2003	Attachment 1: Decision Rule Assumptions to date

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">416</a>	09002-09003	6/25/2003	Email from Emily Smith, DEQ to William Bogue, EPA and Elizabeth Materna, FWS Subject: ArcView files for the Bull Trout Habitat Use Designations
<a href="#">417</a>	09004-09072	5/21/2003	Email from John Palmer, EPA, to Jeffrey Lockwood, NOAA, et al., Subject: Agenda for Where/When Meeting 5/27-28; 5 attachments Attachment 1: draft Agenda Attachment 2: Trail Map Attachment 3: Oregon Options Recommendations Attachment 4: Life stage inventory Attachment 5: OFWO complete manual
<b>Temperature Project Email Messages</b>			
<a href="#">418</a>	09073-09073	4/28/2003	EMail from John Palmer, EPA, to Dave Mabe, IDEQ, et al., Subject: Final Temperature Guidance, with 4 attachments
<a href="#">419</a>	09074-09129	4/28/2003	Attachment 1: EPA Final Guidance for Pacific NW State and Tribal Temperature Water Quality Standards; April 2003
<a href="#">420</a>	09130-09132	4/28/2003	Attachment 2: NOAA support letter to EPA; April 23, 2003
<a href="#">421</a>	09133-09135	4/28/2003	Attachment 3: FWS support letter to EPA; April 21, 2003
<a href="#">422</a>	09136-09137	4/28/2003	Attachment 4: EPA Issues Final Water Temperature Guidance; April 2003
<a href="#">423</a>	09138-09138	2/26/2003	Email from John Palmer, EPA, to Dave Mabe, IDEQ, et al., Subject: 2-pager for Temperature Call today, with 1 attachment
<a href="#">424</a>	09139-09141	2/26/2003	Attachment 1: Determining the Spatial Extent of the Recommended Salmonid Uses
<a href="#">425</a>	09142-09142	2/3/2003	Email from Jim Muck, FWS, to John Palmer, EPA, Subject: Reply to comments, with 1 attachment
<a href="#">426</a>	09143-09144	2/3/2003	Attachment 1: EPA has not demonstrated that human influences on temperature is a problem for fish populations as a whole
<a href="#">427</a>	09145-09146	1/23/2003	Email from John Palmer, EPA, to Dave Mabe, IDEQ, et al., Subject: Temperature Meeting Agenda & other materials, with 5 attachments
<a href="#">428</a>	09147-09147	1/23/2003	Attachment 1: EPA Temperature Guidance Meeting Draft Agenda
<a href="#">429</a>	09148-09154	1/23/2003	Attachment 2: Section VI & mixing zone provisions to protect salmonids
<a href="#">430</a>	09155-09159	1/23/2003	Attachment 3: Possible changes to temperature guidance, draft, 01/16/02
<a href="#">431</a>	09160-09169	1/23/2003	Attachment 4: Summary of Scientific Peer Review Discussion concerning US EPA Region 10 Guidance for stream temperature water quality standards, December 3, 2002
<a href="#">432</a>	09170-09176	1/23/2003	Attachment 5: Major comments (categorized) on 2nd draft of temperature guidance; 1/7/03
<a href="#">433</a>	09177-09177	1/16/2003	Email from John Palmer, EPA, to Dave Mabe, IDEQ, et al., Subject: Temp Materials (Changes, Peer Review, Comment Sum), with 3 attachment(s).
<a href="#">434</a>	09178-09182	1/16/2003	Attachment 1: Possible Changes to Temperature Guidance draft, 1/16/02
<a href="#">435</a>	09183-09192	1/16/2003	Attachment 2: Summary of Scientific Peer Review Discussion concerning US EPA Region 10 Guidance for stream temperature water quality standards, December 3, 2002
<a href="#">436</a>	09193-09199	1/16/2003	Attachment 3: Major Comments (categorized) on 2nd Draft of Temperature Guidance; 1/7/03
<a href="#">437</a>	09200-09200	11/26/2002	Email from John Palmer, EPA to Dru Keenan, EPA, et al., Subject: Peer Review Questions, with 2 attachments
<a href="#">438</a>	09201-09203	11/26/2002	Attachment 1: Questions for the Scientific Peer Review Panel EPA's 2nd Draft Temperature Guidance; 11/26/2002
<a href="#">439</a>	09204-09221	11/26/2002	Attachment 2: EPA Region 10 Draft Temperature Guidance Overview of 2nd public review draft
<a href="#">440</a>	09222-09222	9/30/2002	Email from John Palmer, EPA, to Dave Mabe, IDEQ, et al., Subject: Changes to Temperature Guidance, with 1 attachment
<a href="#">441</a>	09223-09232	9/30/2002	Attachment 1: EPA, Discussion of Use and Criteria Presented in Table 3

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">442</a>	09233-09233	9/30/2002	EMail from Shelley Spalding, FWS, to John Palmer, EPA, Subject: Bull Trout Peer Review, with 1 attachment
<a href="#">443</a>	09234-09247	9/30/2002	Attachment 1: Bull Trout Temperature Threshold peer review summary; September 19, 2002
<a href="#">444</a>	09248-09249	9/16/2002	EMail from Shelley Spalding, FWS, to John Palmer, EPA, Subject: Comments on revised temperature guidance
<a href="#">445</a>	09250-09250	8/29/2002	EMail from John Palmer, EPA, to D. Mabe, DEQ, et al., Subject: Revised Temperature Guidance, with 1 attachment
<a href="#">446</a>	09251-09280	8/29/2002	Attachment 1: EPA 2nd Draft for State and Tribal Temperature Water Quality Standards; August 29, 2002
<a href="#">447</a>	09281-09282	8/8/2002	EMail from Debra Sturdevant, DEQ, to John Palmer, EPA, Subject: Mulling over the Temperature Criteria Metric, with 3 attachments
<a href="#">448</a>	09283-09537	8/8/2002	Attachment 1: Average Temperatures Table for two Grande Ronde Basin monitoring locations
<a href="#">449</a>	09538-09541	8/8/2002	Attachment 2: Summary table of Temperature Data for 8 monitoring locations
<a href="#">450</a>	09542-09543	8/8/2002	Attachment 3: Memo to John Palmer from Debra Sturdevant regarding temperature metric comments
<a href="#">451</a>	09544-09544	8/7/2002	EMail from Dale McCullough, to Don Essig, IDEQ, et al., Subject: Re: Mulling over the Temperature Criteria Metric, with 1 attachment
<a href="#">452</a>	09545-09547	8/7/2002	Attachment 1: Memo to John Palmer, EPA from Dale McCullough, CRITFC regarding Mulling over the Temperature Criteria Metric
<a href="#">453</a>	09548-09548	8/6/2002	EMail from John Palmer, EPA to Dave Mabe, IDEQ, et al., Subject: Major Decisions for Temperature Guidance/Next meeting - Aug 28th, with 1 attachment
<a href="#">454</a>	09549-09549	8/6/2002	Attachment 1: Major Decisions regarding the draft temperature guidance, 08/05/02
<a href="#">455</a>	09550-09551	8/6/2002	EMail from Jason Dunham, FS, to John Palmer, EPA, Subject: Mulling over the Metric
<a href="#">456</a>	09552-09554	8/6/2002	EMail from Don Essig, IDEQ, to Dave Mabe, IDEQ, et al., Subject: Mulling over the Metric, with 1 attachment
<a href="#">457</a>	09555-09575	8/6/2002	Attachment 1: Issues related to temperature measurement and monitoring, May 25, 2000
<a href="#">458</a>	09576-09576	7/29/2002	EMail from Shelley Spalding, FWS, to John Palmer, EPA. Subject: Paragraph on Bull trout listing & temperature with 1 attachment
<a href="#">459</a>	09577-09577	7/29/2002	Attachment 1: EPA Bull Trout paragraph
<a href="#">460</a>	09578-09578	7/11/2002	EMail from Shelley Spalding, FWS, to Bull Trout Temperature Peer Review Panel, et al., Subject: Bull trout peer review documents, with 1 attachment
<a href="#">461</a>	09579-09581	7/11/2002	Attachment 1: EPA's Bull Trout Recommendation, July 9, 2002
<a href="#">462</a>	09582-09583	7/11/2002	EMail from Shelley Spalding, FWS, to Dave Mabe, IDEQ, et al., Subject: Literature for peer reviewers
<a href="#">463</a>	09584-09584	7/3/2002	EMail from Shelley Spalding, FWS, to John Palmer, EPA, Subject: Bull trout peer review documents, with 5 attachments
<a href="#">464</a>	09585-09609	7/3/2002	Attachment 1: Multiple Lines of Evidence for Determining Upper Optimal Temperature Threshold for Bull Trout; Dale McCullough, CRITFC, and Shelly Spalding, USFWS, June 27, 2002
<a href="#">465</a>	09610-09633	7/3/2002	Attachment 2: Dissenting Opinion on Biological Threshold Numbers proposed by Regional Temperature Criteria Development Technical Workgroup

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">466</a>	09634-09701	7/3/2002	Attachment 3: Evaluating Standards for Protecting Aquatic Life in Washington's Surface Water Quality Standards Temperature Criteria, June 2002
<a href="#">467</a>	09702-09704	7/3/2002	Attachment 4: EPA Bull Trout peer review questions, July 3, 2002
<a href="#">468</a>	09705-09707	7/3/2002	Attachment 5: EPA Bull Trout Recommendation
<a href="#">469</a>	09708-09708	6/20/2002	EMail from Shelley Spalding, FWS, to John Palmer, EPA, Subject: Letter to Peer Review Panel, with 1 attachment
<a href="#">470</a>	09709-09711	6/20/2002	Attachment 1: Peer review letter
<a href="#">471</a>	09712-09712	6/17/2002	EMail from Shelley Spalding, FWS, to Mark Hicks, WDOE, Subject: Phone record with Rick Barrows, with 1 attachment
<a href="#">472</a>	09713-09714	6/17/2002	Attachment 1: Telephone Record with Frederic Barrows regarding Growth temperature studies for bull trout at the USFWS Bozeman Fish Technology Center
<a href="#">473</a>	09715-09715	5/31/2002	EMail from Shelley Spalding, FWS, to Christopher Mebane, DEQ, et al., Subject: Mainstem subbasin summary on water quality; Montana bull trout
<a href="#">474</a>	09716-09716	5/22/2002	EMail from John Palmer, EPA, to Dave Mabe, IDEQ, et al., Subject: New Temperature Fact Sheet, with 1 attachment
<a href="#">475</a>	09717-09719	5/22/2002	Attachment 1: Fact Sheet; EPA to Issue Second Draft of Regional Water Temperature Guidance for Public Review, May 2002
<a href="#">476</a>	09720-09721	5/15/2002	EMail from Christopher Mebane, DEQ, to Don Essig, DEQ, et al., Subject: Bull Trout literature, with 2 attachments
<a href="#">477</a>	09722-09764	5/15/2002	Attachment 1: Empirical Evaluation of Temperature Effects on Bull Trout Distribution in the NW Final Report, February 16, 1999
<a href="#">478</a>	09765-09858	5/15/2002	Attachment 2: The Relationship between Water Temperature and Bull Trout Distribution and Abundance; B. Gamet Thesis
<a href="#">479</a>	09859-09861	5/14/2002	EMail from John Palmer, EPA, to Shelley Spalding, FWS, Subject: New "Straw" Species Life Stage Criteria and Application, with 1 attachment.
<a href="#">480</a>	09862-09863	5/14/2002	Attachment 1: Species Life Stage Criteria & Application Straw Option; Draft, for discussion purposes only, May 8, 2002
<a href="#">481</a>	09864-09866	5/13/2002	EMail from Shelley Spalding, FWS, to Dru Keenan, EPA, Subject: Questions for 5/21/02 meeting, <b>Attachment listed above in 5/14/2002 email message</b>
<a href="#">482</a>	09867-09867	5/10/2002	EMail from Dale McCullough, to Jason Dunham, FS et al., Subject: Bull trout re-review for EPA, with 1 attachment
<a href="#">483</a>	09868-09903	5/10/2002	Attachment 1: Review of Rationales for Setting Temperature Criteria, Dale McCullough, May 10, 2002
<a href="#">484</a>	09904-09905	5/9/2002	EMail from Shelley Spalding, FWS, to Dru Keenan, EPA, Subject: Bull Trout Panel of Experts
<a href="#">485</a>	09906-09906	5/9/2002	EMail from John Palmer, EPA, to Dru Keenan, EPA, et al., Subject: Bull Trout Discussion
<a href="#">486</a>	09907-09907	5/8/2002	EMail from Shelley Spalding, FWS, to John Palmer, EPA, Subject: New "Straw" Species Life Stage Criteria and Application, <b>Attachment listed above in 5/14/2002 email message</b>
<a href="#">487</a>	09908-09910	5/1/2002	EMail from Stephen Zylstra, FWS, to John Palmer, EPA, Subject: FWS Comments on new proposed guidance
<a href="#">488</a>	09911-09911	4/17/2002	EMail from Dru Keenan, EPA to Cathy Tortorici, NOAA, et al., Subject: The Story Behind the Record Runs of Salmon, with 1 attachment
<a href="#">489</a>	09912-09919	4/17/2002	Attachment 1: Derek Poon PH D.; Recent record salmon runs, are we out of the woods; April 12, 2002 working draft
<a href="#">490</a>	09920-09920	4/2/2002	EMail from Dale McCullough, to Christopher Mebane, DEQ, et al., Subject: Weber heat shock paper, with 1 attachment

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">491</a>	09921-09931	4/2/2002	Attachment 1: Final report to the National Council of the paper industry for air and stream improvement
<a href="#">492</a>	09932-09932	3/27/2002	EMail from Dale McCullough, to Christopher Mebane, DEQ, et al., Subject: Bull trout--temp./ration/size/growth, with 1 attachment
<a href="#">493</a>	09933-09944	3/27/2002	Attachment 1: Notes on bull trout growth v. temperature at various ration levels, Dale McCullough; 3/26/2002
<a href="#">494</a>	09945-09945	1/7/2002	EMail from Shelley Spalding, FWS, to Susan Martin, FWS, et al., Subject: Bull trout temperature thresholds, with 1 attachment
<a href="#">495</a>	09946-09955	1/7/2002	Attachment 1: Draft Charr Guild "Species Life Stage" Recommended Thresholds, 1/7/02
<a href="#">496</a>	09956-09956	11/15/2001	EMail from Debra Sturdevant, DEQ to Jason Dunham, FS, et al., Subject: New paper on bull trout, with 1 attachment
<a href="#">497</a>	09957-09968	11/15/2001	Attachment 1: Effect of Temperature on Growth and Survival of Bull Trout with Application of an Improved Method for Determining Thermal Tolerance in Fishes
<a href="#">498</a>	09969-09970	11/15/2001	EMail from Jason Dunham, FS, to Debra Sturdevant, DEQ, Subject: New paper on bull trout, with 1 attachment - <b>2nd attachment is listed above on 11/15/2001 email message</b>
<a href="#">499</a>	09971-09971	11/15/2001	Attachment 1: Predicted probability of occurrence small juvenile Bull trout
<a href="#">500</a>	09972-09974	11/6/2001	EMail from Dru Keenan, EPA, to Pat Larson, Oregon Cattleman Association, Subject: EPA appendix included as part of the temperature criteria project, with 1 attachment
<a href="#">501</a>	09975-09977	11/6/2001	Attachment 1: Letter from EPA to Pat Larson, Oregon Cattleman Association re- the Appendix to the spatio-temporal technical summary prepared for the development of the Regional Temperature Criteria Guidance
<a href="#">502</a>	09978-09979	10/31/2001	EMail from Geoffrey Poole, Cornell.edu, to Dru Keenan, EPA, et al., Subject: Case Study Watersheds, with 1 attachment
<a href="#">503</a>	09980-09980	10/31/2001	Attachment 1: Umatilla and Chiwawa River Watersheds
<a href="#">504</a>	09981-09981	10/29/2001	EMail from John Palmer, EPA, to Cathy Tortorici, NOAA, et al., Subject: Temperature public notice/fact sheet, with 1 attachment
<a href="#">505</a>	09982-09985	10/29/2001	Attachment 1: EPA Issues Draft Temperature Guidance
<a href="#">506</a>	09986-09986	10/23/2001	EMail from John Palmer, EPA. to Cathy Tortorici, NOAA, et al., Subject: Resend of Temperature Guidance Appendix A & B, with 2 attachments
<a href="#">507</a>	09987-09992	10/23/2001	Attachment 1: Appendix A, Recommend EPA Temperature Thresholds for use in Establishing Thermal Potential and Species Life State Numeric Criteria
<a href="#">508</a>	09993-10007	10/23/2001	Attachment 2: Appendix B, Recommended Process to Establish Thermal Potential Numeric Criteria for Temperature Based on Multiple Lines Evidence
<a href="#">509</a>	10008-10008	10/18/2001	EMail from John Palmer, EPA, to Cathy Tortorici, NOAA, et al., Subject: Proposed Temperature Guidance, with 1 attachment
<a href="#">510</a>	10009-10020	10/18/2001	Attachment 1: Proposed EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards, Public Review Proposal 10/18/01
<a href="#">511</a>	10021-10021	10/9/2001	EMail from John Palmer, EPA, to Cathy Tortorici, NOAA. et al., Subject: FWS comments on draft temperature guidance, with 1 attachment
<a href="#">512</a>	10022-10034	10/9/2001	Attachment 1: FWS comments to draft temperature guidance
<a href="#">513</a>	10035-10035	10/9/2001	EMail from John Palmer, EPA, to Cathy Tortorici, NOAA, et al., Subject: Temperature Guidance Transmittal Letter & Issues, with 1 attachment
<a href="#">514</a>	10036-10036	10/9/2001	Attachment 1: Transmittal Letter for public review of draft EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards
<a href="#">515</a>	10037-10037	9/27/2001	EMail from John Palmer, EPA, to Cathy Tortorici, NOAA, et al., Subject: 3rd Draft of EPA R10 Proposed Temperature Guidance, with 1 attachment

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">516</a>	10038-10048	9/27/2001	Attachment 1: EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards; 3rd Draft 9/27/01
<a href="#">517</a>	10049-10049	8/10/2001	EMail from Geoffrey Poole, Cornell Edu, to Dru Keenan, EPA, et al., Subject: Final Synthesis, with 1 attachment
<a href="#">518</a>	10050-10073	8/10/2001	Attachment 1: Technical Synthesis, Scientific Issues relating to temperature criteria for Salmon, Trout, and Char native to the Pacific NW, August 1, 2001
<a href="#">519</a>	10074-10074	8/10/2001	EMail from Geoffrey Poole, Cornell Edu, to Dru Keenan, EPA, et al., Subject: Response to Oregon Forest Industries Council/Washington Forest Protection Association with 1 attachment
<a href="#">520</a>	10075-10079	8/10/2001	Attachment 1: Response to Oregon Forest Industries Council/Washington Forest Protection Association comments
<a href="#">521</a>	10080-10080	8/2/2001	EMail from Sally T Sauter, USGS, to Dru Keenan, EPA, et al., Subject: Smoltification--from Wally Zaugg, with 1 attachment
<a href="#">522</a>	10081-10085	8/2/2001	Attachment 1: Effect of Temperature on Parr-Smolt Transformation in Pacific Salmonids
<a href="#">523</a>	10086-10086	7/12/2001	EMail from Jason B Dunham, FS to Munthank, FS, et al., Subject: Bull trout and temperature - final report, with 1 attachment
<a href="#">524</a>	10087-10161	7/12/2001	Attachment 1: Models to predict suitable habitat for juvenile bull trout in Washington state, Final Report, July 15, 2001
<a href="#">525</a>	10162-10163	6/6/2001	EMail from Jeffrey Lockwood, NOAA, to Dru Keenan, EPA, Subject: NMFS' views on fish distribution, with 1 attachment
<a href="#">526</a>	10164-10167	6/6/2001	Attachment 1: Consideration of Accessible, Inaccessible, Unoccupied and Historic Habitat in NMFS Designation of Critical Habitat
<a href="#">527</a>	10168-10168	3/13/2001	EMail from Dru Keenan, EPA to Dru Keenan, EPA, et al., Subject: Names of new Peer Reviewers, with 3 attachments
<a href="#">528</a>	10169-10170	3/13/2001	Attachment 1: Peer Review Panel for EPA Region 10 Stream Temperature Criteria
<a href="#">529</a>	10171-10171	3/13/2001	Attachment 2: Peer Review Panel; 02-13-01
<a href="#">530</a>	10172-10172	3/13/2001	Attachment 3: Peer Review Panel; 02-13-01
<a href="#">531</a>	10173-10173	2/15/2001	EMail from John Palmer, EPA to Cathy Tortorici, NOAA, et al., Subject: Final Updated Fact Sheet, with 1 attachment
<a href="#">532</a>	10174-10175	2/15/2001	Attachment 1: EPA February 2001, Update; Pacific NW Water Quality Temperature Criteria Guidance
<a href="#">533</a>	10176-10176	1/5/2001	EMail from Dale McCullough, Columbia River Inter-Tribe, to Christopher Mebane, DEQ, et al., Subject: 2 new publications
<a href="#">534</a>	10177-10177	9/22/2000	EMail from Sherri Johnson to Elizabeth Materna, FWS, Subject: RE: EPA temperature project peer review, with 1 attachment
<a href="#">535</a>	10178-10185	9/22/2000	Attachment 1: Stream Temperature Bibliography
<a href="#">536</a>	10186-10186	7/5/2000	EMail from Christopher Mebane, DEQ, to Debra Sturdevant, DEQ, et al., Subject: Stream Temperature Report, with 2 attachments
<a href="#">537</a>	10187-10202	7/5/2000	Attachment 1: Forest Science Project, Regional Assessment of Stream Temperatures across Northern California and their Relationship to various Landscape-Level and Site-Specific Attributes
<a href="#">538</a>	10203-10223	7/5/2000	Attachment 2: Draft Issues related to Temperature Measurement and Monitoring, May 25, 2000
<b>Temperature Project Documents</b>			
<a href="#">539</a>	10224-10272	3/11/2003	Draft EPA Region 10 Guidance for Pacific NW State and Tribal Temperature Water Quality Standards
<a href="#">540</a>	10273-10318	2/14/2003	Draft EPA Region 10 Guidance for Pacific NW State and Tribal Temperature Water Quality Standards
<a href="#">541</a>	10319-10328	9/11/2002	Bull Trout Temperature Criteria Peer Review Panel
<a href="#">542</a>	10329-10331	10/16/2002	EPA Regional Water Temperature Guidance, October 2002

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">543</a>	10332-10369	10/10/2002	2nd Draft EPA Region 10 Guidance for Pacific NW State and Tribal Temperature Water Quality Standards
<a href="#">544</a>	10370-10399	8/29/2002	2nd public review Draft EPA Region 10 for State and Tribal Temperature Water Quality Standards
<a href="#">545</a>	10400-10423	6/18/2002	2nd Draft EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards
<a href="#">546</a>	10424-10424	6/13/2001	Bull Trout Locations by Stream Reach in Oregon
<a href="#">547</a>	10425-10459	Oct-01	Draft EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards
<a href="#">548</a>	10460-10460	6/27/2000	Handwritten Notes, unknown author
<a href="#">549</a>	10461-10469	No Date	Oregon Temperature Criterion for T & E Species
<a href="#">550</a>	10470-10476	No Date	Figure 1- Growth of bull trout in relation to temperature at full ration
<a href="#">551</a>	10477-10477	No Date	Anticipated Workload
<b>Second Supplemental Administrative Record, dated April 22, 2009</b>			
<a href="#">552</a>	10478-10482	2/23/2004	Email from Jeff Kopf, EPA, to Elizabeth Materna, FWS, et al., Subject: FWS Revised Incidental Take Statement (ITS), with 1 attachment
<a href="#">553</a>	10483-10484	2/23/2004	Attachment: Effect of the Take
<a href="#">554</a>	10485-10500	12/12/2003	Draft of Section of Overview of Water Quality Standards from Biological Evaluation
<a href="#">555</a>	10501-10541	12/11/2003	Draft of Section 5.0 Analysis of Effects, of the Biological Evaluation
<a href="#">556</a>	10542-10558	11/28/2003	Proposed Action Section
<a href="#">557</a>	10559-10559	11/25/2003	Email from MaryLou Soscia, EPA, to Elizabeth Materna, FWS, Subject: Preliminary Draft List - Clarifications/Interpretations in DEQ Rule <b>Attachment withheld: Deliberative</b>
<a href="#">558</a>	10560-10560	11/20/2003	Email from Jeff Lockwood, NOAA, to Robert Anderson, NOAA, et al., Subject: Preliminary Draft List - Clarifications in DEQ Rule <b>Attachment withheld: Deliberative</b>
<a href="#">559</a>	10561-10561	11/18/2003	Email from Dru Keenan, EPA, to Elizabeth Materna, FWS, et al., Subject: Notes from 11.17. call with FWS, NOAA and EPA <b>Attachment withheld: Deliberative</b>
<a href="#">560</a>	10562-10562	10/21/2003	Email from Dru Keenan, EPA, to Steve Ellis, Tetra Tech, et al., Subject: Notes for Conference Call on Biological Assessment for OR Proposed Rule <b>Attachment withheld: Deliberative</b>

Index to Administrative Record for the U.S. Fish and Wildlife Service Biological Opinion for  
EPA's Proposed Approval of Revised Oregon Water Quality Standards for Temperature,  
Intergravel Dissolved Oxygen, and Antidegradation  
February 24, 2004

Hyperlink	Bate Stamp Range	Date of Document	Description
<a href="#">561</a>	10563-10563	10/17/2003	Email from Dru Keenan, EPA, to Steve Ellis, Tetra Tech, et al., Subject: Comments on 10/6/03 draft Biological Assessment <b>2 Attachments withheld: Deliberative</b>
<a href="#">562</a>	10564-10564	10/7/2003	Email from Steve Ellis, Tetra Tech, to Robert Anderson, NOAA, et al., Subject: Final Draft Biological Assessment, with 1 attachment
<a href="#">563</a>	10565-10709	10/7/2003	Attachment: Draft Biological Assessment
<a href="#">564</a>	10710-10710	9/18/2003	Email from Jeff Lockwood, NOAA, to Steve Ellis, Tetra Tech, et al., Subject: Comments on 9-2-03 Draft Biological Assessment, with 1 attachment; <b>1 Attachment withheld: Deliberative</b>
<a href="#">565</a>	10711-10854	9/18/2003	Attachment: Comments on 9/2/2003 Draft Biological Assessment
<a href="#">566</a>	10855-10856	8/18/2003	Email from Bob Stuart, Tetra Tech, to Marylou Soscia, EPA, et al., Subject: Draft Effects Analysis for Chinook Salmon, with 1 attachment
<a href="#">567</a>	10857-10872	8/18/2003	Attachment: Analysis of Effects in BO
<a href="#">568</a>	10873-10877	4/11/2003	Faxed draft letter from NMFS to John Iani EPA Comments on final guidance. Internal US government agencies
<a href="#">569</a>	10878-10882	2/21/2003	Email from Susan Burch, FWS, to Jim Muck, FWS, Subject: Final input to EPA on bull trout rearing number
<a href="#">570</a>	10883-10885	2/18/2003	Email from John Palmer EPA to Stephen Zylstra FWS, Subject: Bull trout Rearing
<a href="#">571</a>	10886-10886	2/18/2003	Email from Stephen Zylstra, FWS, to Ken Berg, FWS et al., Subject: Final Draft of EPA Regional Temperature Criteria Guidance, <b>Attachment Previously Released</b>
<a href="#">572</a>	10887-10887	2/13/2003	Email from Stephen Zylstra, FWS, to John Palmer, EPA, Subject: Juvenile Bull Trout Rearing Criteria
<a href="#">573</a>	10888-10888	12/13/2002	Email from Don Steffek, FWS, to John Palmer, EPA, Subject: FWS comments on regional temperature guidelines, with 1 attachment
<a href="#">574</a>	10889-10893	12/13/2002	Attachment: EPA temperature criteria for bull trout
<a href="#">575</a>	10894-10894	11/18/2002	Email from Stephen Zylstra, FWS, to Don Steffek, FWS, Subject: Regional Temperature Criteria Guidance comments, <b>Attachment released</b>
<a href="#">576</a>	10895-10896	10/16/2002	Email from Stephen Zylstra, FWS, to Ken Berg, FWS, et al., Subject: 2nd Draft of EPA's Regional Temperature Criteria Guidance, <b>2 Attachments Previously Released ; 1 Attachment withheld: Deliberative</b>
<a href="#">577</a>	10897-10897	12/27/2001	Email from Stephen Zylstra, FWS, to Elizabeth Materna, FWS, et al., Subject: Regional Temperature Criteria Briefing Statement <b>Attachment withheld: Deliberative</b>
<a href="#">578</a>	10898-10898	12/21/2001	Email from Stephen Zylstra, FWS, to Cynthia Barry, FWS, et al., Subject: Regional Temperature Criteria Guidance, <b>Attachment Previously Released</b>
<a href="#">579</a>	10899-10899	3/30/2000	Email from Sarah Hall, FWS to Stephen Zylstra, FWS, Subject: Recovery question
<a href="#">580</a>	10900-10904	No Date	Draft letter from FWS to EPA commenting on a 10/2/2002 guidance
<b>Final Supplemental Added Records, dated November 9, 2009</b>			
<a href="#">581</a>	10905-10908	2/12/2003	Email from Shelley Spalding, FWS, to Elizabeth Materna, FWS, et al., Subject: Let's Discuss; issues related to bull trout criteria
<a href="#">582</a>	10909-10910	11/18/2002	November 2002 FWS comments
<a href="#">583</a>	10911-10913	11/18/2002	Draft letter to EPA regarding comments on the proposed EPA Region 10 Guidance for State and Tri Biological Assessment Temperature Water Quality Standards
<a href="#">584</a>	10914-10921	1/16/2002	Draft joint letter from NMFS and USFWS to Randy Smith, EPA, Comments on the 10/31/2001 public review draft guidance

## Attachment 1. Log of Excluded Documents

NWEA Doc #	Date of Document	Description
<b>Biological Opinion</b>		
7	1/22/2004	Email from John Palmer, EPA, to Robert Anderson, NOAA, et al., Subject: Conservation Measures Intro Language; 1 pg <b>Reason Withheld: Deliberative/Attorney-client</b>
8	1/22/2004	Email from John Palmer, EPA, to Cathy Tortorici, NOAA, et al., Subject: Revised conservation measure #1; 1 pg <b>Reason Withheld: Deliberative</b>
9	12/29/2003	Email from Jeff Lockwood, NOAA, to John Palmer, EPA, et al., Subject: Biological Evaluation - What to expect, 2 pgs <b>Reason Withheld: Deliberative</b>
10	12/17/2003	Email from Jeff Lockwood, NOAA, to Dru Keenan, EPA, et al., Subject: Dec. 17 NOAA re-draft of EPA measures, with 1 attachment, 1 pg <b>Reason Withheld: Deliberative/Attorney-client</b>
11	12/17/2003	Attachment 1: Dec. 16, 2003 Re-draft of Conservation Measures by Jeff Lockwood, 2 pgs <b>Reason Withheld: Deliberative</b>
14	12/5/2003	Email from Jeff Lockwood, NOAA, to Marylou Soscia, EPA, et al., Subject: Possible Conservation Measures, 3 pgs <b>Reason Withheld: Deliberative</b>
15	12/3/2003	Email from Dru Keenan, EPA to Keith Cohon, EPA, et al., Subject: Very Draft Biological Evaluations for the OR Package, with 1 attachment, 1 attachment released, 1 pg <b>Reason Withheld: Deliberative</b>
16	12/3/2003	Attachment 1: Section 5.0 Analysis of Effects 11/26/03, 65 pgs <b>Reason Withheld: Deliberative</b>
19	11/25/2003	Provisions in Proposed Oregon DEQ water Quality Criteria Needing Clarification or Interpretation, Transmittal email was released, 3 pgs <b>Reason Withheld: Deliberative</b>
21	11/20/2003	Provisions in Proposed Oregon DEQ water Quality Criteria Needing Clarification or Interpretation, Transmittal email was released, 2 pgs <b>Reason Withheld: Deliberative</b>
23	11/17/2003	Conference call notes, Transmittal email was released, 2 pgs <b>Reason Withheld: Deliberative</b>
24	11/14/2003	Email from Jeff Lockwood, NOAA, to Dru Keenan, EPA, et al., Subject: potential consultation issues with 1 attachment, 1 pg <b>Reason Withheld: Deliberative</b>
25	11/14/2003	Attachment 1: Potential Endangered Species Act and Magnuson-Stevens Act (MSA) Consultation Issues, 2 pgs <b>Reason Withheld: Deliberative</b>
26	10/29/2003	Email from Robert Anderson, NOAA, to Jeff Lockwood, NOAA, et al., Subject: Snake River Spawning Criterion, 1 pg <b>Reason Withheld: Deliberative</b>
28	10/21/2003	Notes from EPA Rule Biological Assessment conference Call on Oct 20, 2003, Transmittal email was released, 2 pgs <b>Reason Withheld: Deliberative</b>
30	10/17/2003	EPA Region 10 and Headquarters Comments on 10.6.03 Version of Final Draft Biological Assessment, Transmittal email was released, 2 pgs <b>Reason Withheld: Deliberative</b>
31	10/17/2003	NOAA's comments on final draft Biological Assessment, Transmittal email was released, 2 pgs <b>Reason Withheld: Deliberative</b>

### Attachment 1. Log of Excluded Documents

NWEA Doc #	Date of Document	Description
32	10/17/2003	Comments from Elizabeth Materna, FWS, on 10/6/03 Final Draft Biological Assessment, Transmittal email was released, 3 pgs <b>Reason Withheld: Deliberative</b>
37	9/18/2003	Comments on 9-2-03 EPA draft biological evaluation by Robert Anderson and Jeff Lockwood, Transmittal email was released, 1 pg <b>Reason Withheld: Deliberative</b>
38	8/19/2003	Email from Dru Keenan, EPA, to Bob Stuart, Tetra Tech, et al., Subject: Draft Effects Analysis for Chinook Salmon, Attachment not pertinent to email message; 2 pgs <b>Reason Withheld: Deliberative</b>
41	8/6/2003	NOAA Briefing Oregon Water Quality Standards Promulgation Update, 2 pgs <b>Reason Withheld: Deliberative</b>
42	7/30/2003	NOAA comments on Aug 6, Where & When Conference Call, 2 pgs <b>Reason Withheld: Deliberative</b>
43	<b>Temperature Criteria Guidance Project</b>	
44	4/21/2003	Faxed draft letter from FWS to John Iani, EPA on Comments on the final guidance (4/03) with handwritten comments from FWS Regional Office staff; 5 pgs <b>Reason Withheld: Deliberative</b>
46	Apr-03	Briefing statement, EPA finalizing guidance, prepared for the Secretary from Gary Fraser, Asst. Dir. FWS, prepared by Stephen Zylstra, FWS; 2 pgs <b>Reason Withheld: Deliberative</b>
47	3/24/2003	Email from Stephen Zylstra, FWS transmitting draft letter to FWS Program Leaders and staff, Includes handwritten notes; 1 pg <b>Reason Withheld: Deliberative</b>
48	3/24/2003	EMail from Stephen Zylstra, FWS, to Wendi Weber, FWS, et al., Subject: EPA Regional Temperature guidance, Attachment withheld above with 03/07/2003 email message; 1 pg <b>Reason Withheld: Deliberative</b>
49	3/12/2003	Briefing for FWS Deputy Regional Director prepared by Stephen Zylstra, FWS. Subject EPA temperature guidance; 7 pgs <b>Reason Withheld: Deliberative</b>
50	3/12/2003	Notes prepared by Stephen Zylstra, FWS, for briefing with Deputy Regional Director, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
51	3/7/2003	EMail from Shelley Spalding, FWS, to Stephen Zylstra, FWS, Subject: Assurance letter for EPA Regional Temperature Criteria Guidance, with 1 attachment; 1 pg <b>Reason Withheld: Deliberative</b>
52	3/7/2003	Attachment 1: Draft letter to EPA regarding comments on the proposed EPA Region 10 Guidance for State and Tri Biological Assessment Temperature Water Quality Standards (April 2003); 2 pgs <b>Reason Withheld: Deliberative</b>
53	3/4/2003	EMail from Stephen Zylstra, FWS, to Jim Muck, FWS, et al., Subject: EPA Regional Temperature Criteria Deputy Regional Director briefing; 3 pgs <b>Reason Withheld: Deliberative</b>
54	2/25/2003	Question and Answer, States/Tribes will define these terms; 1 pg <b>Reason Withheld: Deliberative</b>
56	2/19/2003	EMail from John Al Young, FWS, to Stephen Zylstra, FWS, Subject: Final input to EPA on Bull trout rearing number; 4 pgs <b>Reason Withheld: Deliberative</b>
60	2/12/2003	EMail from Stephen Zylstra, FWS, to Shelley Spalding, FWS et al., Subject: Let's Discuss; issues related to bull trout criteria; 4 pgs <b>Reason Withheld: Deliberative</b>

### Attachment 1. Log of Excluded Documents

NWEA Doc #	Date of Document	Description
62	2/4/2003	EMail from Shelley Spalding, FWS, to Elizabeth Materna, FWS, Subject: Clarification on our EPA meeting; 2 pgs <b>Reason Withheld: Deliberative</b>
63	1/23/2003	EMail from John Palmer, EPA, to Shelley Spalding, FWS, Subject: Temperature follow-up issues; 3 pgs <b>Reason Withheld: Deliberative</b>
64	1/9/2003	EMail from Melanie Rowland, NOAA, to Jeff Lockwood, NOAA, Subject: No adverse effect on improved water quality standards; 7 pgs <b>Reason Withheld: Deliberative/Attorney-client</b>
65	12/27/2002	EMail from Jeff Lockwood, NOAA, to Stephen Zylstra, FWS Subject: No adverse effect on improved water quality standards; 4 pgs <b>Reason Withheld: Deliberative</b>
66	12/26/2002	EMail from Stephen Zylstra, FWS, to John Palmer, EPA.. Subject: Help respond to comment: no adverse effect on improved water quality standards; 3 pgs <b>Reason Withheld: Deliberative</b>
69	12/9/2002	EMail from Stephen Zylstra, FWS, to John Palmer, EPA Subject: Form of Service's Endorsement of Temperature Guidance; 3 pgs <b>Reason Withheld: Deliberative</b>
70	11/18/2002	EMail from Shelley Spalding, FWS, to Elizabeth Materna, FWS, Subject: FWS comments on EPA guidance, attachment released; 1 pg <b>Reason Withheld: Deliberative</b>
74	10/30/2002	Draft letter from NMFS to John Iani, EPA regarding Comments on 10/10/2002 draft guidance; 10 pgs <b>Reason Withheld: Deliberative</b>
76	9/27/2002	Briefing Statement for the Regional Director regarding US EPA Regional Temperature Criteria Guidance; 2 pgs <b>Reason Withheld: Deliberative</b>
77	9/25/2002	EMail from Stephen Zylstra, FWS, to Kemper McMaster, FWS, et al., Subject: Briefing regarding EPA's Regional Temperature Criteria Guidance, with 1 attachment; 1 pg <b>Reason Withheld: Deliberative</b>
78	9/25/2002	Attachment 1: Briefing Statement for the Regional Director regarding US EPA Regional Temperature Criteria Guidance; 2 pgs <b>Reason Withheld: Deliberative</b>
79	9/11/2002	EMail from Stephen Zylstra, FWS, to Kemper McMaster, FWS, et al., Subject: EPA's Regional Temperature Criteria Guidance, Attachment Released; 2 pgs <b>Reason Withheld: Deliberative</b>
80	9/11/2002	EMail from Shelley Spalding, FWS, to Stephen Zylstra, FWS et al., Subject: Revised Temperature Guidance, Attachments Released; 2 pgs <b>Reason Withheld: Deliberative</b>
81	8/12/2002	EMail from Stephen Zylstra, FWS, to Dru Keenan, EPA, Subject: Endangered Species Act (ESA) Assurances; 3 pgs <b>Reason Withheld: Deliberative</b>
82	8/5/2002	EMail from Stephen Zylstra, FWS, to Kemper McMaster, FWS, et al., Subject: EPA's Regional Temperature Criteria Guidance, Attachment Released; 1 pg <b>Reason Withheld: Deliberative</b>
83	3/18/2002	Briefing statement for FWS Regional Director prepared by Stephen Zylstra, FWS, Subject EPA temperature guidance with handwritten notes by Stephen Zylstra FWS; 2 pgs <b>Reason Withheld: Deliberative</b>

### Attachment 1. Log of Excluded Documents

NWEA Doc #	Date of Document	Description
84	3/18/2002	Briefing statement for FWS Regional Director prepared by Stephen Zylstra, FWS, Subject: EPA temperature guidance; 2 pgs <b>Reason Withheld: Deliberative</b>
87	12/27/2001	Attachment 1: 01/09/2002 Briefing Statement for Assistant Regional Director regarding US EPA Regional Temperature Criteria Guidance; 2 pgs <b>Reason Withheld: Deliberative</b>
89	11/7/2001	Handwritten notes by Elizabeth Materna, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
90	9/26/2001	Handwritten notes by Elizabeth Materna, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
91	7/25/2000	Handwritten notes of Stephen Zylstra FWS regarding internal agency discussion of Regional Temperature Project; 2 pgs <b>Reason Withheld: Deliberative</b>
92	6/27/2000	Handwritten notes of Stephen Zylstra FWS Regional Temperature Criteria; 3 pgs <b>Reason Withheld: Deliberative</b>
93	3/30/2000	Handwritten notes of Stephen. Zylstra, FWS Temperature Criteria Meeting notes; 2 pgs <b>Reason Withheld: Deliberative</b>
95	10/22/1999	Handwritten notes by Stephen Zylstra, FWS Water Temperature Criteria Meeting; 3 pgs <b>Reason Withheld: Deliberative</b>
96	No Date	Handwritten notes by Elizabeth Materna, FWS, Moderately Cold Water Guild; 1 pg <b>Reason Withheld: Deliberative</b>
97	No Date	Handwritten notes by Elizabeth Materna, FWS, Technical team meeting; 2 pgs <b>Reason Withheld: Deliberative</b>
98	No Date	Temperature as a factor in bull trout listing; 1 pg <b>Reason Withheld: Deliberative</b>
99	No Date	Notes for 3/18/2002 briefing with FWS Regional Director; 1 pg <b>Reason Withheld: Deliberative</b>
100	No Date	Notes for 3/18/2002 briefing with FWS Regional Director with handwritten notes by Stephen Zylstra, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
102	<b>Documents in EPA Record with handwritten notes for authors understanding and clarification</b>	
103	1/16/2003	Possible Changes to Temperature Guidance with Handwritten notes by Stephen Zylstra, FWS; 7 pgs <b>Reason Withheld: Deliberative</b>
104	1/16/2003	Possible Changes to Temperature Guidance with Handwritten notes by Elizabeth Materna, FWS; 6 pgs (document is dated 01/16/2002; we believe incorrect date) <b>Reason Withheld: Deliberative</b>
105	5/2/2002	Bull Trout Criteria for Juvenile Rearing with Handwritten notes by Elizabeth Materna, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
106	4/18/2002	Species Life Stage Application Options Issues/Assumptions for All Options with Handwritten notes by Elizabeth Materna, FWS; 4 pgs <b>Reason Withheld: Deliberative</b>
107	9/19/2001	Table 1. How Cold with Handwritten notes by Elizabeth Materna, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
108	7/28/2000	Proposed Revision for Project Goal Statement and Technical Interpretation with Handwritten notes by Elizabeth Materna, FWS; 1 pg <b>Reason Withheld: Deliberative</b>

### Attachment 1. Log of Excluded Documents

NWEA Doc #	Date of Document	Description
109	3/29/2000	Cumulative Risk Initiative (NMFS) Figure IV-12 graph with Handwritten notes by Elizabeth Materna, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
110	1/20/2000	Goal Statement, Dale McCullough, CRTFC. Handwritten notes by Elizabeth Materna, FWS; 4 pgs <b>Reason Withheld: Deliberative</b>
111	No Date	Pacific Northwest Water Quality Temperature Criteria Guidance Workshop: Presentation on the Technical Workgroup Synthesis Paper, with handwritten notes by Elizabeth Materna, FWS; 18 pgs <b>Reason Withheld: Deliberative</b>
112	No Date	Table 3. Recommended criteria that apply to Summer Max Temperatures with Handwritten notes by Elizabeth Materna, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
113	No Date	Policy Goal and Technical Goals with handwritten notes by Elizabeth Materna, FWS; 2 pgs <b>Reason Withheld: Deliberative</b>
114	No Date	Population Level Characteristics with handwritten notes by Elizabeth Materna, FWS; 3 pgs <b>Reason Withheld: Deliberative</b>
115	No Date	Appendix B. Presentation with Handwritten notes by Elizabeth Materna, FWS; 6 pgs <b>Reason Withheld: Deliberative</b>
116	No Date	Recovery Target Issue with Handwritten notes by Stephen Zylstra, FWS; 1 pg <b>Reason Withheld: Deliberative</b>
117	No Date	Juvenile Rearing MDMT 12 °C (Max Daily Max Temp) with Handwritten notes by Elizabeth Materna, FWS; 4 pgs <b>Reason Withheld: Deliberative</b>